

Wisconsin Society of Architects
August 1986

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Architect

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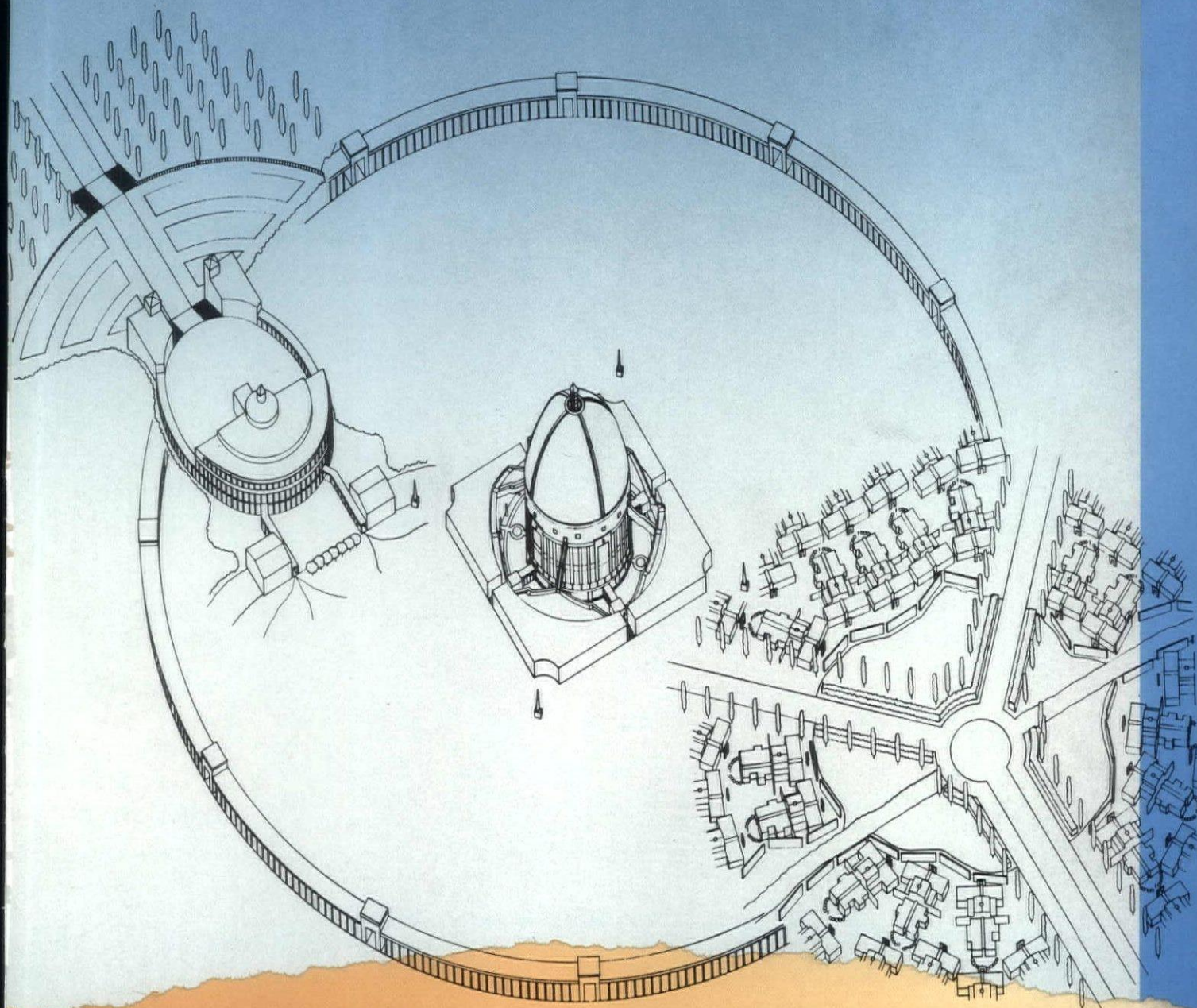
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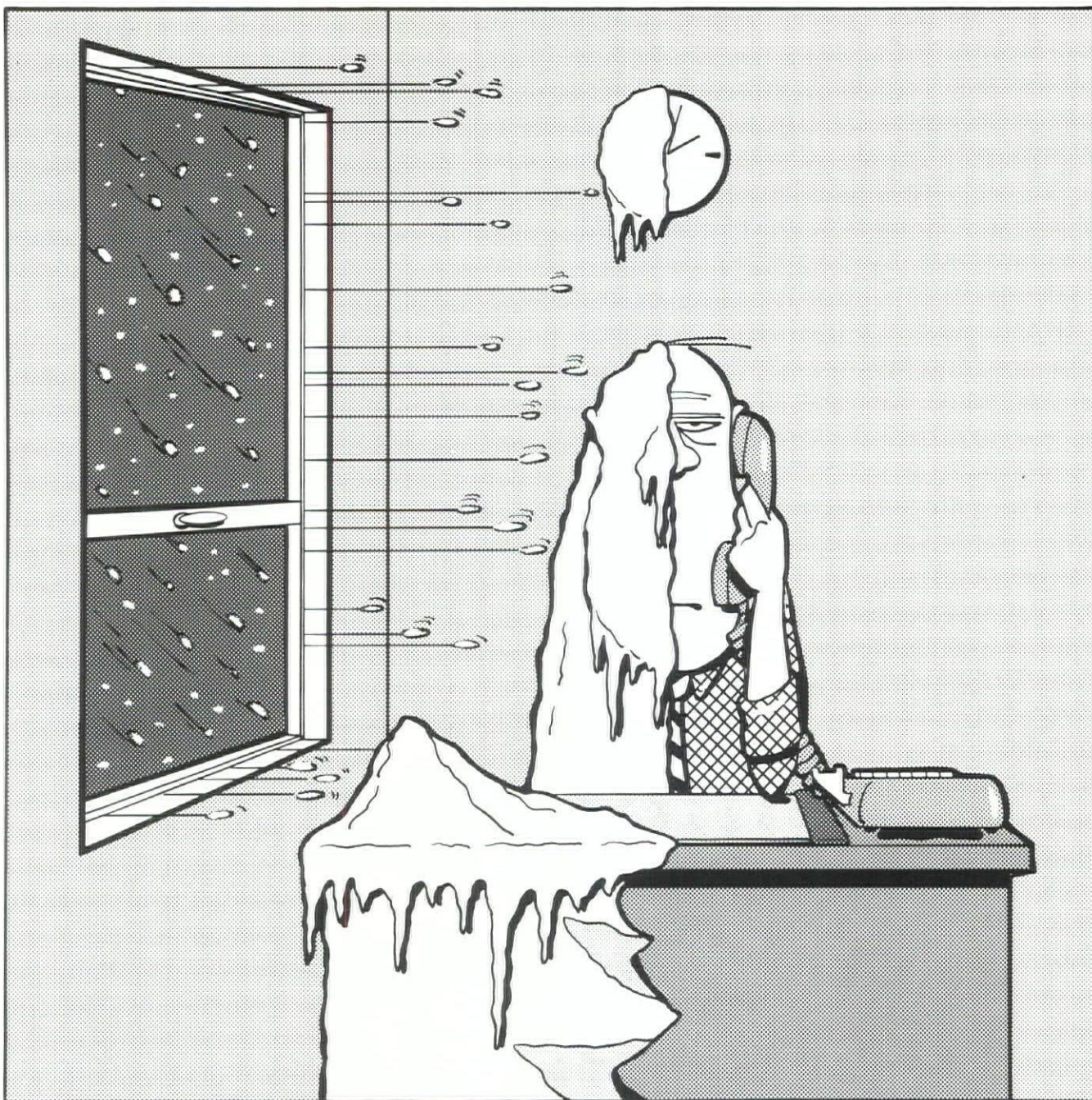
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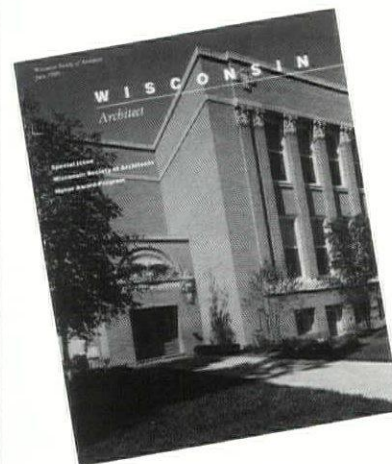
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We at the School of Architecture and Urban Planning have decided to emphasize urban concerns in this issue. This comes about for two reasons. Having recently spent ten years overseas, both in England and New Zealand, my initial architectural impression on returning to the US in 1983 was of the high quality of building construction. Yet the inability of the planning and architecture professions to control

This issue consists of articles

or regulate the assemblage of buildings on the landscape and to reflect a concern for the quality of space between buildings detracts from the built object itself.

and projects conceived by faculty and students at the

School of Architecture and

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Secondly, the urban focus reflects the concerns of a number of faculty and students of SARUP and this issue highlights some of these concerns.

The historical component of urban form is the focus of the article by James Shields on early Wisconsin settlement, while the interface between the internal and external environment is addressed by Virginia Cartwright in her assessment of the work and influence of Alvar Aalto. The contribution by Gil Snyder focuses on new construction techniques for cladding buildings with the importance of the facade having clear urban image overtones.

In the August 1985 issue, Dean Carl Patton highlighted the changing role of the School. An urban project undertaken by the School is documented by Larry Witzling and looks at the urban design proposals for the Lake Terrace Project in Milwaukee.

These articles are augmented by a discussion by Robert Greenstreet of the legal implications of practice in Wisconsin, and also by the illustration of several student projects.

David Reed

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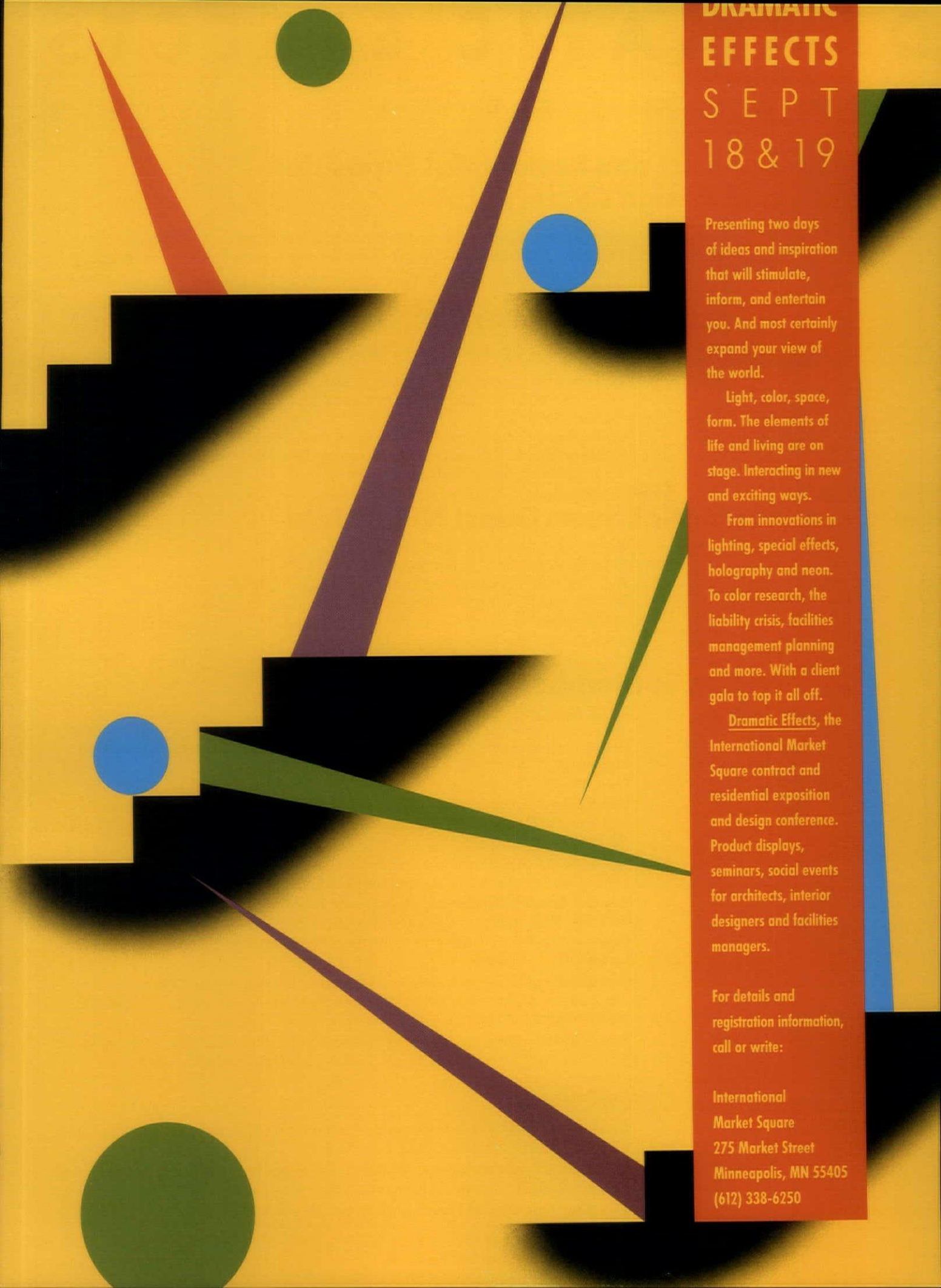
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Illuminating Emotional Response: Modifying Behavior Through Lighting. With James L. Nuckolls, President, LuxCo Limited & LumenCo Limited, New York. 8:30-9:45 am

Behavioral Impact of the 'Churn Rate', with environmental psychologist Ron Goodrich and FACILITIES DESIGN & MANAGEMENT editor John Salustri. 10-11:15 am

Holograms: Applications for Architecture and Interior Design. Scott Lloyd, Director of Education, Museum of Holography, New York. 10-11:15 am

Special Effects: Designing Magic. Bran Ferren, creator of effects for New York's Palladium and Studio 54 nightclubs, films, Evita and Cats on Broadway, architectural renovations, rock concerts and more. Advance reservations required. Luncheon. 12-1:30pm

Developing A Comprehensive Facilities Management Plan. Panel discussion with experts in the field, moderated by Rick McNeilly, CORPORATE DESIGN & REALTY editor. 1:45-3 pm

The Liability Crisis, addressing the impact of architectural responsibility vs. costly insurance; moderated by Len Corlin, CONTRACT editor. 1:45-3 pm

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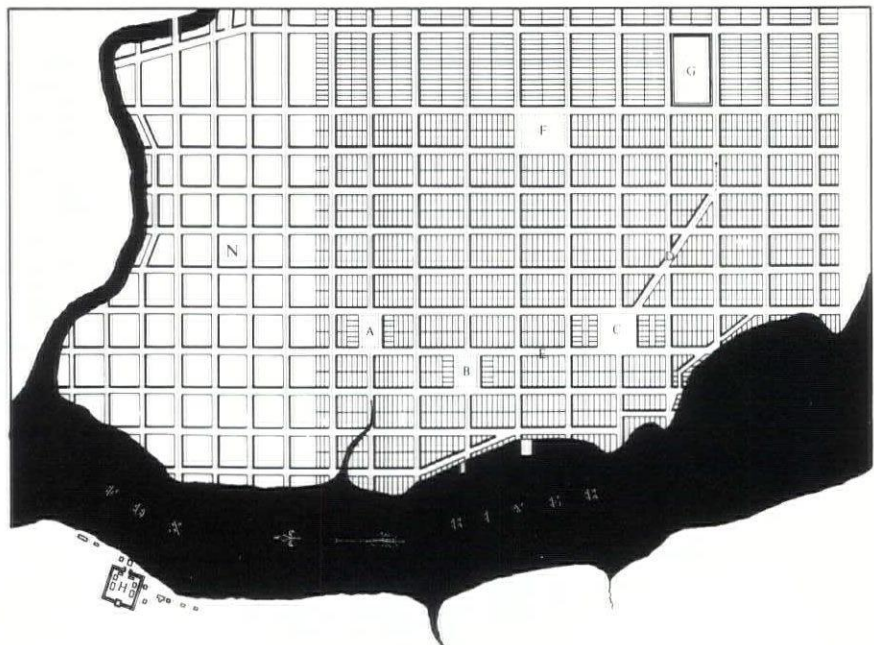
J. D. Doty and the Design of Cities on the Wisconsin Frontier

James Duane Doty (1800-1865) was a leading speculator in Wisconsin's first great land boom, and several of the state's most populous cities stand today on sites that were the subject of Doty's designs and investments. (1) Doty operated for years as a developer and designer of town sites, and the list of Wisconsin cities for which he was wholly or partly responsible include Astor (Green Bay), Carmaunee, Clifton, Doty Island, Fond du Lac, Kentucky City (Dekorra), Madison, Marquette, Menasha, Munnominie, and possibly Wisconsinopolis. (2) Doty's work deserves attention and investigation not only for the prolific nature of his accomplishments, but because he believed that the design of frontier cities deserved more than the undifferentiated grid-irons that dominated American land speculation. This paper will explore the elements and attitudes that made up Doty's city designs, and will do so by using three Wisconsin examples that describe the range of his endeavors—Astor, Fond du Lac, and Madison.

The Plan of Astor

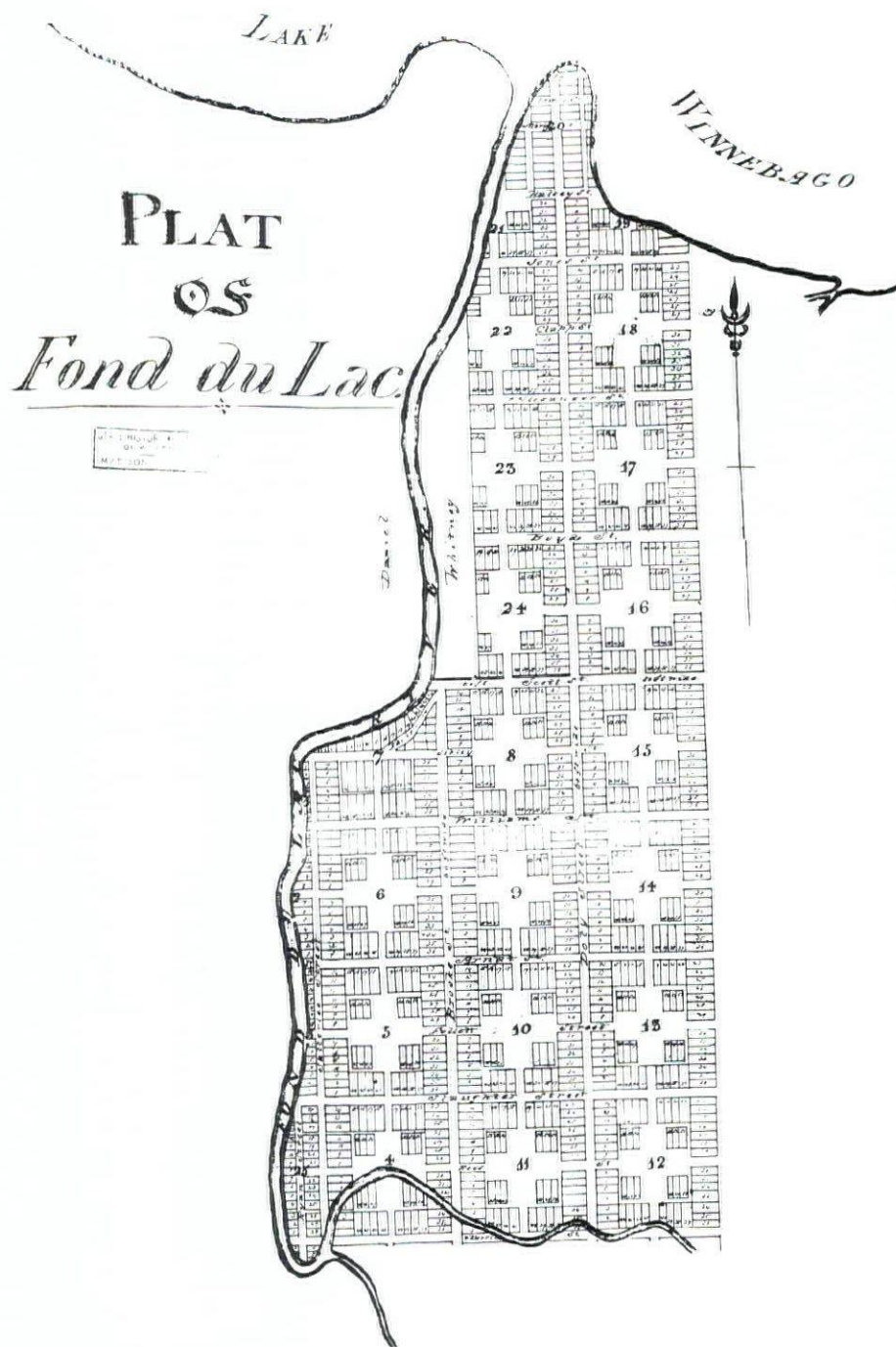
In March of 1835, Doty was commissioned by the New York millionaire, John Jacob Astor, to lay out a town at the site of Green Bay, Wisconsin. Astor selected Doty to design and plat the new town, and to act as developer and agent for the sale of the lots. A large tract of land near the mouth of the Fox River had fallen into the hands of Astor through foreclosure, and it seemed clear that this area was destined to become a busy trading and immigration point. Proof of the value of the property could be found in the adjacent village of Navarino where lots located in a tamarack swamp were being sold. (3)

Doty's plan of Astor takes as its starting point the pre-existing village of Navarino to the north, which had been laid out in 1829 (see figure 1). All North-South streets in Navarino are continued into Astor, knitting the two competing cities together as one. While this seems like a simple and obvious design concept, city plans like Milwaukee, in which competing proprietors intention-



ally ignored the others plats, are perhaps more the norm in American city design. Unlike the village of Navarino, where haste and the desire to maximize saleable property produced a plan of little quality or interest the gridded streets of Astor are interrupted by a series of spaces devoted to the public good. Doty had advised his client that it was customary for western proprietors to contribute toward works of public nature, and the squares in the Astor district of Green Bay stand as a tribute to his conviction. Three public squares enliven the grid, all linked together by a single street (Madison Street). The squares are all tied to the Fox River, both by means of their close proximity to the waterfront, and by means of streets which run on the central axis of each square to dead-end in the river. Doty also altered the design of the blocks surrounding these squares, allowing twenty to twenty-four narrow lots to take advantage of each space. The siting of each square is in some aspect unique and particular. Square "A" is located with respect to an existing rivulet which enters the city, square "B" seems to relate to the existing wharf, while square "C" features a diagonal avenue which radiates from its center. (4) Slashing through the city blocks, the idiosyncratic diagonal (intended as a shortcut to the military road to Chicago) lends the largest square unique power. Such an unusual feature can best be understood in the light of trips to both Detroit and Washington which Doty had made in 1834 and 1835 immediately prior to drawing up the Astor plan. Certainly the squares and diagonal streets of both Woodward's Detroit and L'Enfant's Washington must have influenced Doty's ideas concerning the design of cities.

The plan of Astor contains two other notable features: a public burial ground (F), and a site for a school of Manual Labor (G). The cemetery, curiously located within the city plat, is treated like a missing city block. Likewise, the school grounds, which are drawn as if



surrounded by a walled enclosure. The treatment of these two elements as ordinary city blocks allow the squares to hierarchically dominate the plan by being the only elements to interrupt the grid.

With the exception of the cemetery and school grounds, Doty's plan is mute with regard to the functions that were to eventually inhabit the grid. No prominent sites were set aside for city hall, courthouse, churches, or other public monuments. Neither does the plan attempt to differentiate between residential, civic, commercial, or manufacturing districts. One can infer certain allocations from the plan, such as: inland residential blocks, civic buildings about the public squares, commercial on the waterfront, etc. But for Doty, the Astor plan is essentially neutral with regard to specific function. The concerns of his design work remain relatively simple: the block, the street, the square, and the relationship of these to the specific geography of place.

The Plan of Fond du Lac

During the same years that Doty was involved in the development and promotion of the town of Astor, he began work on a town site on Lake Winnebago called Fond du Lac. After the purchase of the property in 1835, the 'Fond du Lac Company' was formed with Doty as president and surveyor Albert Ellis as one of the partners. In the 1830's, Doty saw the southern tip of Winnebago as a promising trade and transportation center, situated as it was along the projected military road from Chicago to Green Bay. Fond du Lac was also envisioned as part of an extensive system of canal and river improvements planned for Wisconsin at that time. Doty knew that if these improvements were completed, they would make this new community an extremely prosperous development.

Doty's plan for Fond du Lac is highly unique (see figure 2). The plat begins as a uniform grid-iron superimposed on the serpentine shapes contained by Lake Winnebago and the Fond du Lac River. Doty then alters the grid by inserting seventeen cruciform shaped open spaces into the heart of each four block 'neighborhood.' The order and geometry of this pattern essentially ignore the natural shapes of the land, and every square, regardless of its position, is identical to all the others. Major streets (60 feet wide) surround every four block grouping, while narrowed minor streets subdivide each central square. Although these minor streets do axially link these squares together, their effect on the spaces themselves is unfortunate. As later plans and photographs show, the minor streets run straight through the center of each open space, cutting it into four small "L" shapes. This practice runs contrary to the manner in which squares had typically been planned, with streets running about a square, containing and defining it as common and public open space. The end result must have seemed not at all like a public square, but more like unusually large front yards for the twelve central lots. This must certainly have discouraged any kind of communal use of these "squares," and the end result was that over time these cross-shaped spaces have been completely replatted into private lots. Hardly anything of Doty's grand conception remains in Fond du Lac, and the city's oldest plat seems today a featureless grid-iron.

What did Doty have in mind for this plan, and what was the genesis of the idea? Doty had lived as a young man in the city of Detroit, and had visited it as recently as one year before the conception of the Fond du Lac plan. A principle aspect of Woodward's scheme for Detroit was a series of public squares which were oriented inward towards a central neighborhood building or park. These spaces were described in 1807: "... the internal space of ground, in the

middle of every section, shall be reserved for public wells and pumps, for markets ... and in the same manner shall be paved, graveled, planted with trees, or otherwise improved or ornamented." (6)

While Doty must have been influenced by Woodward's ideas, the integration of repetitive squares of green open space into the grid of the American city was by no means a new idea. Even Thomas Jefferson had suggested an ideal plan (7) alternating city blocks with squares of green, and it is perhaps not unreasonable to see in this concept something uniquely American, agrarian, and essentially anti-urban.

While it is highly unfortunate that none of the early work at Fond du Lac has survived, the interested antiquarian can still see this plan form executed, and partially preserved in the city of Marquette, Wisconsin (Green Lake Country). (8) Marquette was a Fox River town platted as early as 1836 in a form virtually identical to Fond du Lac, with Doty's partner Albert G. Ellis involved as proprietor. (9) The slow pace of development in Marquette, which seems to have never produced intense pressure for property within the city, explains the survival of two such squares.

The Plan of Madison

In April of 1836, Doty and a business partner became owners of a narrow isthmus of land in the Four Lakes region of Wisconsin. During the summer Doty organized the 'Four Lakes Company' and was empowered to act as agent in the sale of lots in the as yet unplatted town. Soon afterwards, Doty drew up a plan of the 'Town of Madison,' and as early snowfall covered the Wisconsin Landscape, he set off with the surveyor John Suydam. After over a week on horseback they reached the Four Lakes area, and in several days time made such surveys of the irregular terrain as were necessary for an accurate plat. The two then moved on to the meeting of the Legislature in Belmont, where Suydam set about drawing the plan under Doty's direction, (10) a plan which is reproduced as figure 3.

The plan of Madison is an ambitious and highly interesting scheme, a plan in which Doty's earlier experiments in the design of cities comes to maturity. The scheme focuses on a vast (914 feet square) central square, which is reserved for "Public Buildings." Radiating from this central space are four diagonal streets and four major avenues. The diagonal streets are located along township survey section lines, and Doty must have noticed that these section lines crossed near the top of the highest hill on the isthmus. This hilltop crossing supplied Doty with the location for the central square, and the rest of the plat seems to have followed from there. Two other diagonal streets were also planned, and these also followed the layout of the township section lines. Unconnected to the central square, these two unbuilt diagonal avenues would have formed a powerful entry sequence into the city for those approaching Madison from the east, offering a trident of vistas to both lakes and to the central square. With this diagonal geometry is combined a grid-iron of long rectangular

blocks oriented in the direction of the long, thin neck of land between the lakes. Connecting the lakes is a mill race which divides the town into two parts. This mill race takes advantage of the natural level differences between the lakes, and a square is reserved at its southern end for the construction of mills. This 'mill square' opens to the lake, and the city seems to embrace the water at this point. Doty makes several other deviations from the grid-iron, generally to adapt the geometry to the irregular shapes of the lake edges. The grid also alters in the area immediately about the central square, where the city blocks are halved in their size to produce a greater number of street frontage lots in the area which was certain to have the highest property values.

Madison stands as the finest and most complete manifestations of Doty's ideas concerning the design of cities, a culmination of his earlier experiments regarding grid-iron streets, squares, linking diagonals, and the relationship of these to natural features.

Footnotes

1. Doty's career is described by Alice Elizabeth Smith, *James Duane Doty*, Madison, 1954.
2. Although Doty's surveyor Suydam clearly states that he and Doty laid out Wisconsinopolis in 1836, A.E. Smith doubts this assertion, *Ibid.*, p. 413.
3. *Ibid.*, pps. 158-173.
4. The diagonal, labeled "Road to Chicago," is boldly drawn in free-hand ink on the plat in the W.H.S. collection. It was probably not part of the initial scheme but added at some later date.
5. See John W. Reys, *The Making of Urban America*, for Washington and Detroit plans.
6. *Ibid.*, pps. 264-273.
7. See *The Writings of Thomas Jefferson*, Vol. XI, pps. 66-67.
8. A plan of Marquette, Wisconsin has been published by E. Reetz, *Come Back in Time*, Princeton, Wisconsin, 1981.
9. Ellis may have had some larger involvement in the design of both cities than that of financier.
10. Recollections of John V. Suydam, Wisconsin State Historical Society, Madison, 1872, Vol. VI, pps. 388-392.



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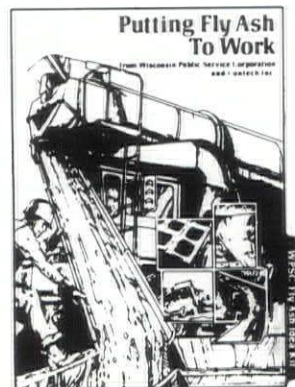
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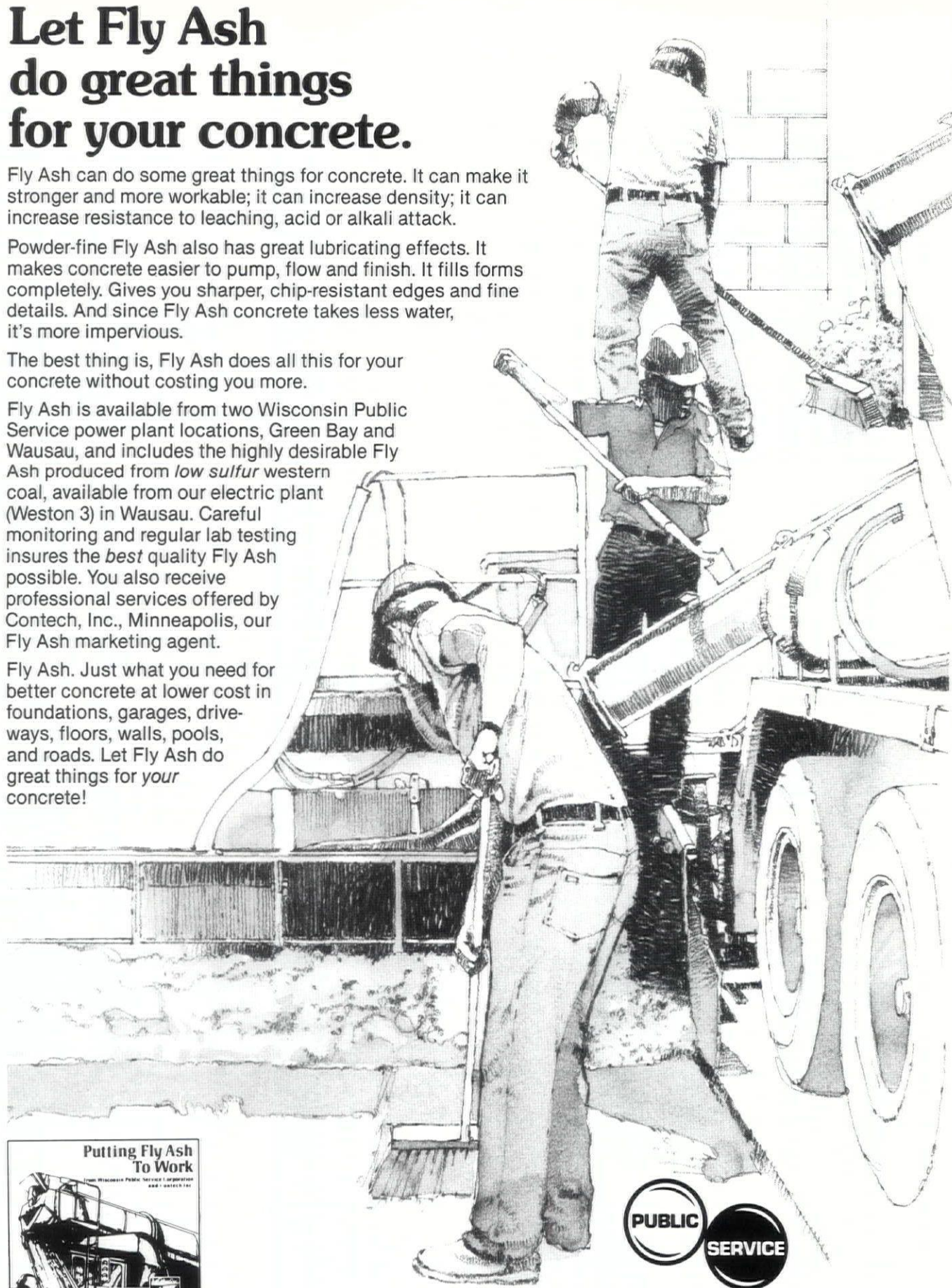
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Figurative Courtyards in Aalto's Architecture

The architecture of Alvar Aalto has a strong emotional quality to it which is both magnetic and indefinable. The architectural language which he used consists of numerous compositional and organizational devices drawn from a variety of sources. Thus, his buildings are often irregular in form and use a variety of materials resulting in an architecture that is termed 'organic' and 'idiosyncratic.' Aalto's architecture denies the belief that unity is achieved by eliminating all but a narrow range of historical, technical, social, and cultural issues but instead achieves both a richness and a unity by a carefully crafted balance between order and disorder. He uses an imagery of complexity, differentiation and ambiguity in form, space, and material.

Through a study of Aalto's architecture, painting, furniture, and other design, it becomes clear that a number of themes (such as the manipulation of light, the undulating surface, etc.) reappear again and again, forming a continuous thread throughout his work. By identifying these themes and tracing their use and development in Aalto's buildings, we can begin to understand something of this highly enigmatic and idiosyncratic architecture.

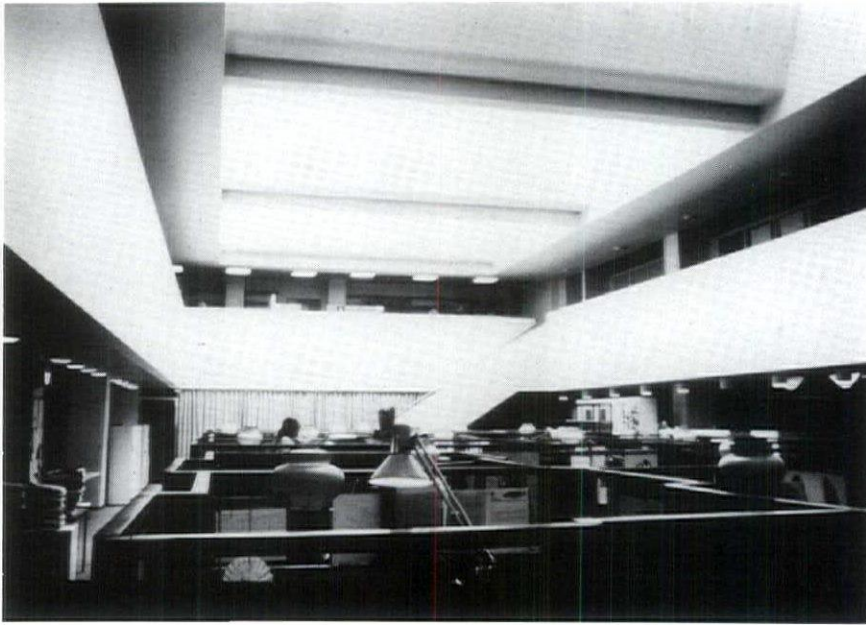
One theme that reappears consistently throughout Aalto's architecture is that of the courtyard. The courtyard is used literally, as a void with the building wrapped around it, or figuratively, as an abstraction or symbol of the literal courtyard.

Before looking at the development of this theme, it is important to look at some of the meanings associated with the courtyard. There are several ideas represented by the courtyard which may have been significant to Aalto. Aalto wrote an article for the sample issue of the illustrated journal, *Aitta*, entitled 'From Doorstep to Living Room,' in which he discussed the importance of linking the exterior with the interior through a transitional room which is

neither completely exterior nor completely interior. He used the Roman atrium house as an example of this idea. The atrium, in this case, provides the transition from the exterior realm to the interior realm and is the central organizing element of the house. Aalto then proposed an idea for developing such a house which would respond to the climatic constraints of Finland. This design will be discussed in more depth later in this article.

A second aspect of the courtyard comes from the ancient Greeks. For them, architecture was meant to be seen and experienced primarily from the exterior. The external spaces, arcades, agoras, theaters, etc., were the places of social interaction, the 'public' realm. Interior spaces for the most part were strictly private and housed such personal activities as eating and sleeping. Later when the Romans built interior public rooms, they treated the boundaries of these rooms, the walls, as they would an exterior facade. They used exterior elements such as columns, gables, and cornices, and in a sense created enclosed exteriors.

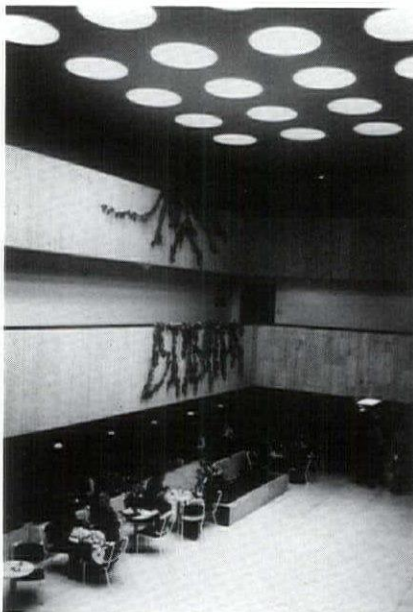
In the Pensions Building, 1952-56, Aalto goes another step beyond the Rautatalo Building. The "court" now houses a major function of the building program, the place of interaction between the public and the employees of the institution. It is in this major interior/exterior space that the citizens come to make payments, receive payments, or transact other business. The space is a large two story volume with large skylights above. The second floor corridor runs along the perimeter of this room. The balustrade of this second floor provides the clearest boundary of this room but it does not extend to the floor or to the line of the beams overhead. Like the "court" of the Rautatalo Building, the walls and columns that form the structure are held back in shadow so that they disappear and the sense of incompleteness is achieved.



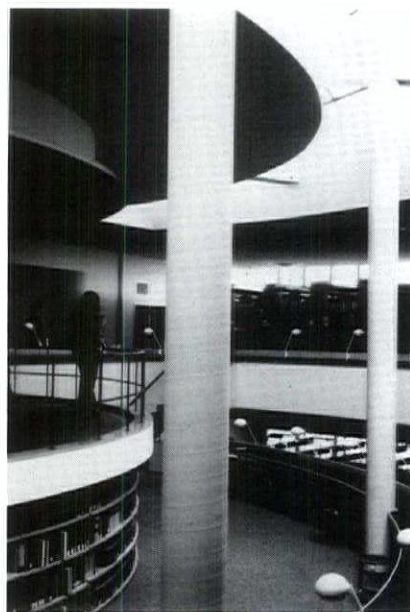
Pensions Institute

In a similar way the ceiling itself has a sense of incompleteness. The elegant pyramidal skylights which dominate the space rise from large beams which run across the width of the room. In one reading, the plane implied by the bottom of the beams provides the ceiling to this space, but in a second reading, the opening suggested by the transparent skylights, and even the light fixtures which are in between the two layers of glass, indicate that the ceiling of the space is well beyond the bottom of the beams.

The "courtyards" in both of these buildings are basically rectangular in plan. It is fairly easy to understand them as direct transformations of the Roman atrium. The library at Mt. Angel presents a much greater abstraction of this concept. The library is located on the north side of a small plateau. The building is entered from the top of this



Rautatalo



Mt. Angel

hill and steps down the slope. Connecting the librarians' control and circulation desk with the stacks is a central core with reading desks and reference books. This core serves as a vertical link between two levels of stacks. It is articulated as a space by recessing the floor and by the light monitor which opens up the ceiling above, along the curve of this area. The curve of this space, the well which connects the lower floor, and the shape and position of the roof monitor, all serve to make the boundaries vague and thus similar to those of an exterior space. The curve itself prevents one from being able to see all the edges of the space at once. The line of the roof monitor does not line up exactly with the line of the reading gallery or the railing by the control desk. This nonalignment also serves to enhance the ambiguity of the edge. The ceiling is much more opaque than that of the Pensions Building but still provides a soft even light which is much like that of the typically overcast sky. The actual shape of the monitor like that of the galleries enhances the vagueness of the edge because of the curve in plan and in section. The monitor rises above the plane of the ceiling of the rest of the library so that it seems to expand upwards beyond the roof. The columns and beams which are part of the roof's structure come down at the intermediate reading level creating a "porch" which one enters by changing levels down from the main floor or up from the lower level.

Thus through the study of the use of the "court" in these three buildings, one can begin to understand the use and development of themes in Aalto's architecture. These themes are a product of a continuous exploration and development and so change over time. By taking these elements one by one and studying their use and development in different building types and contexts, and even in different design forms, we can begin to appreciate the continuity of design intentions in Aalto's architecture.

The theme of courtyard first appeared as a design idea early in Aalto's career; in the drawings which he included in the *Aitta* article. In this case the courtyard is a literal translation of the atrium as Aalto saw it in Roman houses. This central courtyard is covered with a transparent ceiling which creates the feeling of an open courtyard. Each of the rooms of the house is entered off of this central two story space. The walls which form the edges of the courtyard are articulated with cornices, lintels over the doorways, and remain without interior ornament such as paintings. The floor is of a decorative limestone, an exterior material. There are no furnishings in this space, which serves as an internal street fronted by the facades of the rooms. Though this design was never executed, it was an important step in the development of the abstraction of the courtyard.

Aalto used the literal central courtyard in several early buildings such as the Southwestern Agricultural Cooperative Building in 1928, and the Villa Mairea in 1937. In the Southwestern Agricultural Cooperative, Aalto designed an office block with a hole or void in the center. This court is not a part of the usable interior rooms of the building but is a service court, open to the sky. Its primary purpose is to provide light and ventilation to the offices which surround it. In this way it follows the precedent set by many nineteenth century buildings which relied on thin building sections so that each office space could have access to light and ventilation. The effectiveness of this space in providing light is enhanced by the white color of the walls of the court. Though this space functions well as a provider of light and air, it does not enhance the hierarchy of the usable interior spaces, nor is it usable for much of the year as an inhabitable space.

Aalto took this idea of the courtyard and expanded it beyond these literal configurations and functions. By looking at the difference between the perception of interior spaces and exterior spaces, he developed some strategies to make interior rooms feel like exterior spaces. These strategies are: incompleteness or lack of clear and apparent boundaries, the materials, the use of exterior architectural elements, and the provision of light from above. It is these devices that will be explored in the discussion of the "courtyard" in the Rautatalo Building in Helsinki, the Pensions Building in Helsinki, and the Library at Mt. Angel Benedictine Monastery in Oregon.

The Rautatalo Building, built in 1953-55, has a large room that becomes the major interior room. This room, or court, though not in the center of the building, acts in much the same way as the atrium described earlier. It is one story above the street level with grand stairs leading directly from the street to the court. From here the rest of the building is accessed, so that it serves as a lobby for the building. This three story space is covered by a flat ceiling with a grid of conical skylights. These skylights provide a flat even light, which is replicated at night by the electric lights which are located on the roof above each opening. The second and third levels of this space are bounded by corridors connecting various offices. The edges of this space are not obvious—the balustrade of the galleries acts as an edge but it is not clearly connected to either the floor or the ceiling and thus creates a sense of incompleteness. The materials used are typically exterior materials, white marble floor and travertine balustrades. Enhancing the exterior feeling of the room are the plants which hang down from the gallery levels and are placed in pots at the perimeter of the main floor. The small fountain completes the sense of this place as a public plaza.

Rock of Ages

When looking at the new buildings gracing our cities or at the professional journals celebrating their arrival, one clearly sees the resurgence of natural stone as a prominent exterior cladding material. This revived popularity for natural stone, particularly granite, can be traced to several factors: durability, maintenance, economics, technology, engineering, energy conservation, and even taste. While traditional approaches to granite construction still dominate, sophisticated technological advances are redefining the way we consider building with granite.

Granite, like all rock, is an aggregate of minerals with symmetrical crystal forms that show off their internal atomic structure. Normally rock is found in the earth in a solid state, but with the aid of thermal pressure from the movement of overlying rocks—tectonic plates—it will melt and form magma. This can result in the magma rising through the crust during a volcanic eruption where it then cools at the earth's surface. This stone is called volcanic or extrusive igneous rock. When this happens the magma cools rapidly at the earth's surface and forms glassy, finely crystalline volcanic rocks. If the magma never reaches the earth's crust it forms plutonic or intrusive igneous rock which cools slowly to form coarsely crystalline rock. Unlike the extrusive igneous rock, the different mineral formations and textures of intrusive rock are easily visible to the naked eye.

Commercial granite comprises both intrusive and extrusive igneous rock but is most commonly and abundantly found in the intrusive igneous rocks. There are precise geological definitions of granite, but for commercial purposes, the term is used to include all medium- or coarse-grained igneous rocks which contain free quartz, alkali feldspars, and mica along with varying amounts of other minerals. Generally, granite is large-grained, with the grains varying in length from one-sixteenth of an inch to one inch or more in length. Although it

is multicolored, at a distance the colors merge giving it a uniform appearance. Its texture is generally consistent and homogeneous, even in large blocks. Natural geological separation joints in the rock layers develop during the cooling of the magma and are usually widely spaced. This can allow for the quarrying of large single granite pieces unlike most other natural stone. The Egyptian granite used to make Cleopatra's Needle in London is recorded as one of the longest unjointed stones in the world, and points up clearly the wide range of physical performance to be found in granite.

Construction techniques for exterior granite cladding have changed significantly in the last one hundred years. When load bearing construction was the order of the day, the exterior walls of buildings were an integral part of the total load bearing assembly. Where granite exterior faces were employed the granite was integrally tied as an ashlar bond to the internal wall of solid stone or brick. With the introduction of steel skeleton frame construction at the end of the nineteenth century, load bearing design was replaced by non-load bearing exterior curtain walls which, for lack of better alternatives, still based their design on empirical principles garnered during the years of industry experience with load bearing construction. Building codes in New York City in 1927, for example, required a one hundred foot tall, solid brick exterior bearing wall with bonded exterior stone ashlar to maintain an overall wall thickness that varied from twenty inches at the top to twenty eight inches at the bottom. Using that same design approach, a non-load bearing exterior masonry curtain wall supported by a one hundred foot high skeleton frame required a consistent thickness of twelve inches for the entire height of the building. This code required that ashlar bonded to either load bearing or non-load bearing walls should maintain a minimum thickness of four inches.

During the 1960s, rational engineered design began to override empirical design standards in granite construction primarily as an attempt to reduce construction costs and compete effectively with metal curtainwall products. Granite veneers only two inches thick, half the thickness of the 1927 code requirements, were subsequently developed. Despite this decreased panel thickness, granite's proven weathering durability, and its low maintenance, metal curtainwalls continued to retain their popularity over granite and other natural stone products for exterior cladding options. It was the oil crisis of the early 1970s coupled with increased manufacturing efficiencies and architectural style changes that contributed to the current resurgence in the use of granite as a cladding material. With the newly rising cost of metal systems dependent on oil for manufacture, alternatives were sought for exterior cladding.

Newly developed manufacturing techniques both at the quarrying and fabricating stages aided this shift. High intensity blasting and derricks used for the removal of blocks from quarries were replaced by controlled, low intensity blasting and drive-in systems of removal. The development of sawing machines with synthetic diamond saws using very thin blades provided increased control over thickness tolerances. Where standard acceptable tolerances were one-quarter of an inch, they have come down to one-eighth of an inch, and some finishers claim cutting tolerances within one-sixteenth of an inch. This has led to more efficient use of each quarried slab and a consequent drop in overall costs. Polishing machines with six to eight inch diameter wheels have been replaced with high speed machines with eighteen inch diameter wheels capable of polishing three times faster with a greater consistency of finish. These advances in manufacturing techniques were initiated by the Italian stone industry, but several American manufacturers have followed

suit and are generally competitive with European fabricators. That is, of course, dependent on the status of the international monetary system.

This newly acquired ability to control thickness in granite fabrication has allowed an engineered design approach to supplant empirical design codes for veneer systems. Now the structural limitations of granite are being pressed by rational design for stresses due to gravity, wind, and seismic loads. The two inch thick veneer panel which held sway over the four inch ashlar thickness required in 1927 has been replaced by engineered veneers designed for one and one-quarter of an inch thickness. With the development of new composite construction systems, veneers only three-eighths of an inch thick are being touted as the future of granite construction—a far cry from the requirements of the 1927 codes.

Coupled with the ability to manufacture granite to very precise tolerances, new construction systems using thin veneer panel systems have been developed. These systems decrease not only the material cost but purportedly the time required for construction, while at the same time allowing for increased quality control. Recent innovations in thin stone veneer panel systems may be grouped into three categories, truss backed panels, curtainwall infill panels and composite panels.

With the truss backed veneer panel system, one and one-quarter of an inch thick panels are shop applied to a steel truss. Thus clad, the truss is transported to the site where it is attached directly with an overhead crane to the column structure which supports the panel. This system provides for efficiency of production and reduced structural detailing since only the columns are required to support the panel. Truss backed panels are used primarily where on-site

storage, and adequate room for installation are available. Constricted city sites with congested traffic and the attendant materials movement problems make this system less than ideal for dense urban locations. Its use however for suburban construction, where storage and the space required for installation are generally not a problem, has proven to be an economical method for cladding a building in granite.

Veneer infill panels used in proprietary metal curtainwall systems are another cladding approach beginning to appear in high-rise construction around the country. A metal system of mullions and muntins is attached to the structure just as in typical metal curtainwall construction. In lieu, however, of metal infill panels, one and one-quarter inch thick veneer granite panels are installed in a similar fashion to window glazing. This is a relatively inexpensive way to achieve granite exterior cladding. It also allows for significantly reduced building dead loads. Several architects currently employing this system on high-rise buildings are designing the lower portions of the building, from two to five floor, using more elaborate handset granite and entailing. Above the lower levels, the building is constructed using the streamlined curtainwall and veneer panel system. Since the upper floors can only be seen from a distance, lack of detail is not as noticeable, yet the color and texture of the granite are still discernible. The elaborate handset detailing of the lower floors gives the illusion of similar treatment for the entire exterior cladding.

The most controversial of the new granite veneer exterior cladding systems currently in use are composite panels using a three-eighth of an inch sheet of granite laminated to an aluminum honeycomb or gypsum drywall panel.

These composite panels have been put into service only in the last five years and then primarily in temperate climates. They are not generally accepted as a successful exterior cladding system. Extremely lightweight, these composites still convey the appearance of solid granite. The system remains unproven, however, suffering from claims that exterior uses of the panels experience occasional delamination of the granite from the composite member. The three-eighths of an inch thickness is particularly prone to broken edges during construction, and horizontal racking of the building can initiate cracking which might not occur in thicker panels. The use of composite panels as an interior finish has been more readily accepted. Many clients and architects want the granite look both inside and out, but most buildings are not eager to oversize their building structure to allow for extensive use of solid granite interior finishes. These composites are available in modular panels four feet by eight feet and can be simply installed, in elevator lobbies for example, with little or no additional cutting.

As has been demonstrated, recent advances in manufacturing and newly devised construction strategies have contributed to bringing granite exterior cladding back to a prominent location on the architectural stage. These developments present at once the seeds of success and failure. The inherent physical properties of granite are allowed to be pushed to their limits by manufacturing capabilities. The full effect of this drive towards thinness on the ultimate performance and durability of granite is still unclear. Yet, as these systems continue to gain in popularity, an empiricism based on their use may begin to provide the answers.

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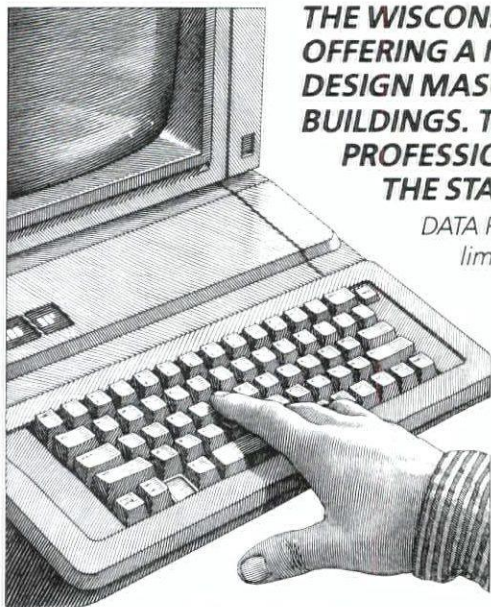
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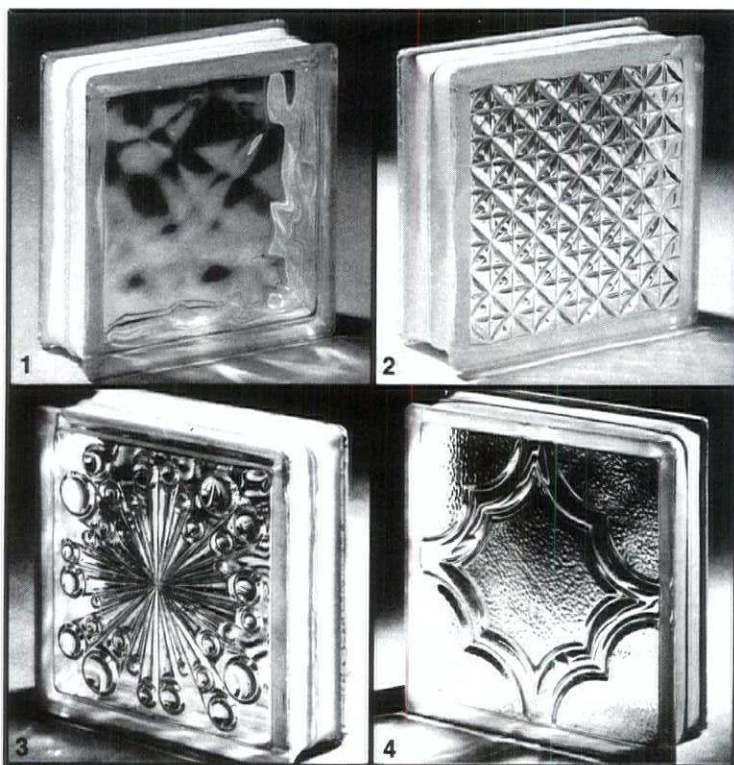
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Legal Liability and the Architect in Wisconsin

Although accurate statistics are not readily available, there have been several suggestions in published reports that perhaps as many as 38% of architects registered in the United States are likely to be enjoined in legal action connected with their work each year, and that the profession might expect a further increase in litigation of another 20% per year. If correct, the impacts of such a legal burden are likely to be profound, not only in the realm of insurance premiums (where increases over the last several years have been reported to be as high as 100-400%), but also in the

However, the issue of liability is still somewhat unclear in the nature of the threat it poses to the profession. Surprisingly, little research has been carried out in the area, and although insurance premium increases provide some quantifiable measure of the problem, the extent of the dangers are largely unknown, and the profession is exposed only to the occasional spectacular case which merits reporting as, for example, the John Hancock Building in Boston some years ago.

Last year, sufficient funding was secured from the Graduate School at the University of Wisconsin-Milwaukee to undertake a detailed investigation of liability as it has impacted upon the architectural profession in Wisconsin. The findings of this study have now been published, and are intended to provide a detailed profile of legal action in relation to the Wisconsin architect, establishing a fact-based framework of the problem and assessing its impact upon the profession.

The purpose of this article is to outline the major findings in the report, which should be consulted for more detailed information.

The research was carried out by examining cases concerning architects decided in the State Court of Appeals and the State Supreme Court over a twenty year period. In this way it was possible to highlight the areas of greatest contention in architectural practice, and to identify the circumstances and variables which have most frequently been associated with sustained legal action in the upper levels of the State court system. In addition, by examining the decided cases over a prolonged time period, it has been possible to ascertain the degree and types of increase in liability to the present time, and to determine whether the prevailing concerns expressed about legal liability and the architect are justified.

Figure 1. Practice Location

Location	% of Sample	Number of Cases
Milwaukee	41%	16
Elkhorn	28%	1
Racine	28%	1
Sheboygan	28%	1
Kenosha	28%	1
Eau Claire	28%	1
Beloit	28%	1
Lake Geneva	28%	1
Chicago	28%	1
Hawaii	28%	1
Michigan	28%	1
La Crosse	10%	2
Madison	10%	2
No Information	20.5%	8

nature of architectural practice itself; high premiums are likely to affect the profit margin normally anticipated when providing architectural services, thus impacting upon salaries of all employees and employers. Furthermore, beyond the financial issue, the constant threat of potential litigation may mean that architects will be more cautious and conservative in their design work.

Figure 2. Dispute Location

Dispute Location	Number of Cases	% of Sample
Milwaukee	16	41%
Madison	2	5.1%
Lafayette	1	2.5%
Poynette	1	2.5%
Eau Claire	1	2.5%
Fredonia	1	2.5%
Lake Geneva	1	2.5%
La Crosse	1	2.5%
Glidden	1	2.5%
Manua	1	2.5%
Beloit	1	2.5%
Kenosha	1	2.5%
Boulder, CO	1	2.5%
Montreal	1	2.5%
Odgen, UT	1	2.5%
Florida	1	2.5%
Not Available	7	17.94%

Figure 3. Client Profile

Client Profile	Number of Cases	% of Sample	
Private Individuals	7	17.94%	
Corporations	10	25.6%	
Partnerships	2	5.1%	
Joint Ventures	2	5.1%	
Boards*:			
County	3	7.69	33.3%
Education	3	7.69%	33.3%
Hospital	2	5.1%	33.3%
Park	1	2.56%	33.3%
Church	1	2.56%	33.3%
Municipal	3	7.69%	33.3%
Not Applicable	5	12.8%	

*Some boards are incorporated

It must be stressed that the analysis is based on a limited number of Wisconsin cases, albeit they are significant milestone ones decided at the highest levels in the State court system, and thus care must be taken in suggesting that the findings and observations are an exact reflection of the liability situation in relation to the architect in Wisconsin.

However, it is hoped that this selective sample provides a factual account of various factors inherent within the cases analyzed, certain observations which are pertinent to the area as a whole. The most prominent of these observations are outlined below.

Figure 4. Building Type

Building Types	Number of Cases	% of Sample
Residential:		
Single Family Houses	1	2.56%
Condominiums/Apartments	10	25.6%
Public Buildings:		
Schools and Related Facilities	7	17.94%
Hospitals	3	7.69%
Nursing Homes	2	5.1%
Dental Clinics	1	2.56%
Observatory	1	2.56%
Commercial:		
Shopping/Retail	3	7.69%
Garages	2	5.1%
Hotels	1	2.56%
Offices	3	7.69%
Factories	2	5.1%
Unknown	4	10.2%

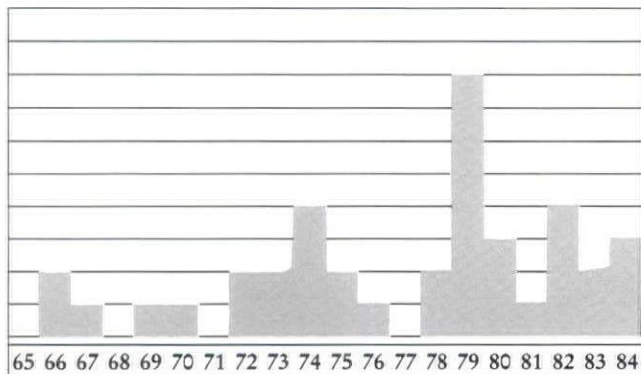
Figure 5. Case Content

Focus of Case	Number of Cases	% of Sample
Accidents		
User	2	
Workperson	2	10.2%
Fee Collection	8	20.5%
Breach of Contract	3	69%
Negligence	4	69%
Negligent Design	11	69%
Negligent Inspection	9	69%
Negligent Specification	2	20.5%
Over-Estimation	1	20.5%
Advertising	1	20.5%
Unauthorized Practice	1	20.5%
Statute of Limitations	8	20.5%
Lien Law	1	20.5%
Bidding Errors	1	20.5%

nb. Some cases were concerned with more than one cause for complaint

Of the cases reviewed, 41% of the architectural practices involved were based in Milwaukee which, although the city has the largest concentration of architects in the state, is disproportionately high by comparison to other towns and cities in Wisconsin (see Figure 1). A similarly high number of projects which have been the focus of

Figure 6. Case Increases Over Time



4 cases	9 cases	13 cases	13 cases
10.2%	23%	33.3%	33.3%
average .8 per year	average 1.1 per year	average 2.6 per year	average 2.6 per year

litigation have also been located in Milwaukee, although in both these cases it was not possible to account for other factors (for example, volume of building work) so the findings are not necessarily conclusive (see Figure 2).

Clients who become involved in litigation tend to be most prolific when they are selected or appointed bodies (see Figure 3), while the building type most commonly involved in legal action appears to be the multi-unit housing complex, followed by schools (see Figure 4).

The facts of the cases reveal that, perhaps not surprisingly, the greatest number of cases brought against the architect cite inadequate design and/or inspection as the cause for complaint. However, the research also indicates that a number of new areas for contention have opened up, particularly in the last several years, which both expand the duties expected of the architect, and the degree of care with which they and the more conventionally accepted duties are carried out. Most noticeable in this category are the fields on negligent specification, over-estimation and statute of limitation expiration (see Figure 5).

In reviewing the cases over the twenty year period, there has been a noticeable increase in the frequency of legal action over the time period of the research study (over 300% since 1965), although the rate of increase has perhaps slowed down in the last few years (see Figure 6). Of these cases, over 51% were initiated by clients against their architects, although other parties were often enjoined in the action as joint tortfeasors (see Figure 6). Architects started 23% of the cases against their clients for fee reclamation.

The judicial decisions made in the sample cases during the research period suggest that initiation of legal action does not necessarily result in the architect's loss. In 41% of the cases, the architect emerged as the 'victor,' either winning a suit or successfully defending a claim, while in cases concerning fee collection, architects were successful in 75% of them (see Figure 7).

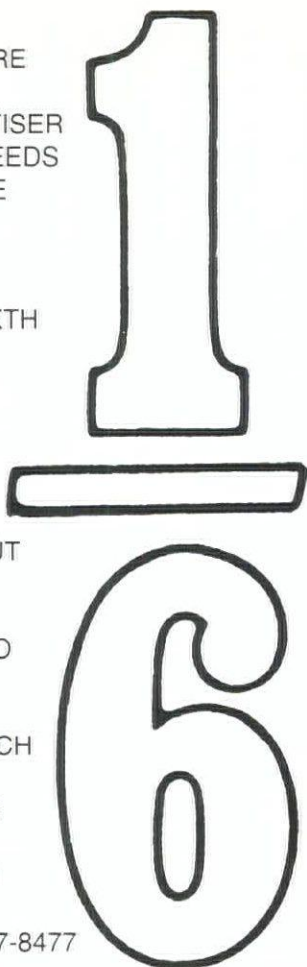
Figure 7. Case Decisions

Case Winner	Number of Cases	% of Sample
Architect	16	41%
Client/Other	18	46%
Split Decisions	3	7.6%
Unknown	2	5.1%

In total, the research suggests a serious but not cataclysmic situation facing the Wisconsin architect in regard to legal liability. If the statistics gleaned from the Upper Court cases are representative of all court action in the state, threat from legal action has certainly increased and the areas where legal action may occur expanded, but the architect has not lost so many cases as to suggest complete subrogation to legal action. In addition to this relatively optimistic observation, it is hoped that the report goes some way to establishing an accurate profile of the architect's liability in Wisconsin, highlighting some of the factors most commonly associated with legal action and providing some guidance for the avoidance of potential pitfalls in architectural practice.

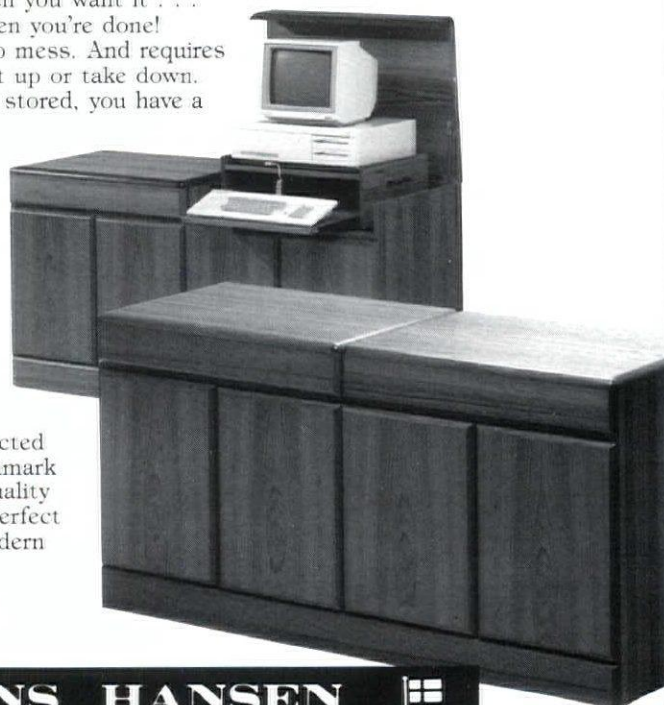
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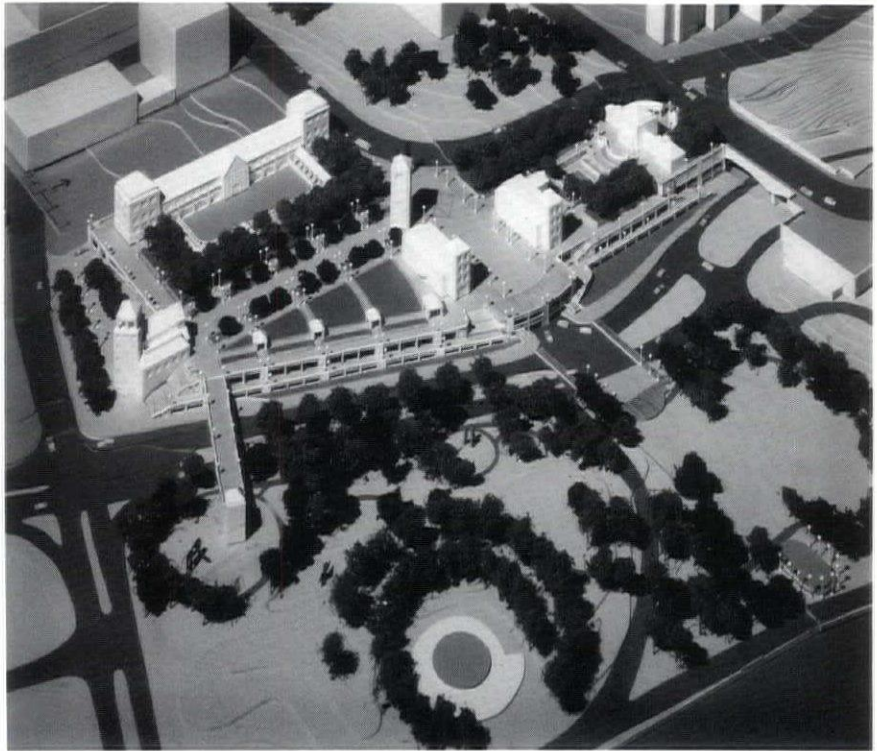
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The Lake Terrace Project



The Lake Terrace proposal is for a two-story parking structure for 1200 cars, topped by a series of public gardens, pavilions, plazas, and courtyards. It is located in Milwaukee at the eastern terminus of the major downtown spine—Wisconsin Avenue—overlooking Lake Michigan and the shoreline. The publicly owned site is a former freeway right-of-way which adjoins a variety of other publicly and privately owned parcels.

This project began in March 1985 when Milwaukee County contracted with the School of Architecture and Urban Planning, UWM, to undertake a "Public Involvement Program and Schematic Design Services." This work involved developing a range of design options which were discussed with different community leaders and civic organizations. The School's work ended in January 1986 with submission of its final proposal to Milwaukee County. Future development of the project, including contracts with architectural and engineering firms, depends upon the County's analysis of the project and its discussions with other governmental units.

Milwaukee's lakefront has always been controversial. For decades, the city and shoreline have been separated. An early barrier of railroad tracks was replaced by a cleared freeway right-of-way filled with surface parking.

This, and other planning dilemmas in the area, prompted the 1980 planning and design competition for 176 acres on the lakefront and provided visions of the future, but it did not answer the pragmatic, short-term problems which needed resolution—especially the questions surrounding the cleared freeway land.

The 1960s plan for a downtown freeway loop covered many acres, including the entire terrace site (7.5 acres). After considerable public debate the unbuilt portions of the freeway loop were legally "demapped" in 1981. However a nagging problem remained. What was to be done with the unconnected, elevated ramps (called "stub ends") which

were built in anticipation of the now defunct freeway? This controversy ended in 1982 when the Wisconsin Department of Transportation proposed a solution balancing traffic needs with local concerns for future land uses. This solution left untouched a critical 7.5 acre site at the foot of the bluff overlooking Lake Michigan.

The next issue involved determining the best use for the land no longer needed for freeway or the stub ends. Again, there was much public debate and discussion. Proposals ranged from completely natural landscapes to high-density urban development. Ultimately the Wisconsin Department of Development issued a disposition plan calling for general public use of the land.

There was, however, an underlying problem. The 650 parking spaces on the land could not be removed without adversely affecting downtown workers, businesses, and overall efforts to revitalize the local economy. In the past, several suggestions had been made for constructing a deck which would extend the edge of the downtown bluff closer to the lakefront and, at the same time, provide space for two levels of parking. In 1984 Milwaukee County hired the firm of Howard Needles Tammen & Bergendoff to undertake a study which ably demonstrated the feasibility of constructing a two-level parking structure covered by a park.

The next step was to develop a design strategy which would receive broad public support and lead to a series of public uses on top of the deck which would create an active, vital public place. To address this combined problem of public policy and conceptual design, Milwaukee County hired the School of Architecture and Urban Planning.

The scope of the project encompassed several interrelated goals including economic development, community image, cultural activities, costs, revenues and facilities management. Underlying these objectives, however, was a more fundamental issue: if the terrace were to be a successful public place it would have to attract many users on a year-round basis.

This simple goal, of attracting many users, quickly became the guiding force in the project and led to the critical design challenge. Given Milwaukee's climate, any year-round use would mandate interior, weather controlled environments. Even without climatic concerns, indoor public places might be necessary to house activities that would draw people on a regional, state-wide, or even national basis. Since the entire area below the terrace was needed for parking, the only other answer was to place structures on top of the terrace. But this was not an easy solution.

In the past, controversies had developed concerning the possibility of new "buildings" on the lakefront and, in particular, on top of the terrace. As yet, however, no proposal had taken a careful look at how structures on the terrace might be configured, and if such structures could meet the test of public opinion. To be successful such structures had to address four problem areas concerning (1) views of the lakefront; (2) the facility program or activities to be contained in the structures; (3) the overall costs and revenues for the project, and; (4) design quality.

Throughout Milwaukee's history, residents had been able to view the lakefront from the bluff adjoining the downtown. Consequently, any new structures had to allow for, and maintain the existing critical views to the east and southeast. The design concept should also take advantage of the fact that the new, perceived edge of the



downtown would be the eastern edge of the terrace, substantially closer to the shoreline than the existing bluff. Not only views from the terrace, but also views toward the terrace and any structures had to be considered.

The accompanying site plan and photographs of the project indicate the response to this problem. The location and configuration of buildings maintain all the critical existing views, frame and enhance those views and also provide an appropriate human-scale image of the terrace when approaching it from all directions.

The issue of appropriate indoor activities was—and still is—a complex problem. The key was to propose the "right mix" of activities which would have a strong public character along with the feeling of vitality and excitement found in great urban plazas. It was too early in the development of the project, however, to propose specific lease arrangements and patterns of occupancy for the facility.

Consequently, a list of potential uses was generated, along with an explanation that the final combination of appropriate uses would be developed in stages. This list included, for example, a range of different types of museums and exhibits on subjects ranging from science and technology to natural resources and maritime history. Other uses were an indoor year-round playground, food concessions, a visitor of tourist information center, and facilities to promote economic development.

Presuming that the design and programming concepts for the structures were publicly acceptable, there was still the much larger question of financial feasibility in terms of both construction capital and annual operation. Here again, it was too early to propose a final financial plan. Nevertheless, the planning and design concept had to have sufficient flexibility to accommodate different financial strategies.

The first step was to insure a simple, cost-effective design for the layout of the parking decks that maximizes the number of parking spaces on the two levels (1200 spaces).

The second step was to plan the location and design of the structures such that they could be built in stages or in different combinations to allow for phased public investment. Thus any specific structure on top of the terrace need not be built until such time as it was perceived to be financially feasible.

The third tactic was to design structures and features with the potential for private sponsorship. Other communities have used this approach successfully. Portland, Racine, and Indianapolis, for example, have helped pay for public plazas by selling individual paving bricks with the donors' names stamped

on top. Larger donations were also received for major fountains, pavilions, and street furnishings. The Milwaukee lakefront terrace, with its dramatic prominence and public prestige, could easily benefit from a similar fund raising strategy.

Last, any financial strategy would be successful only if the entire terrace development and operation were managed effectively. This point was emphasized by showing similar examples of successful public facilities in other communities.

This site plan concept remained constant throughout the project. The content of the plan, however, changed continually in response to discussions with community leaders and local interest groups. Ultimately, the site plan was defined as containing five distinct areas each with a different potential in terms of its visual character, public activity, and indoor facilities.

The north garden is intended as a more intimate, centrally focused environment. Conceptually this area is a gateway to the downtown for the major arterial street from the north. The semicircular courtyard and small pool are a more romantic and ornamental space relative to other areas on the terrace. The street edge landscape complements the existing park directly to the west. The pavilion can be designed as a completely open-air structure, a one-story building with about 2,000 square feet, or a two-story structure with a below-grade extension that totals 14,000 square feet.

This area is the principle public plaza on axis with the major downtown street—Wisconsin Avenue. Twin pavilions continue the visual corridor and frame the view of Lake Michigan. The design incorporates both the existing Di Suvero sculpture and the plaza features commemorating the old Northwestern railway station.

The need for high quality design is often presumed in public projects but not always realized. In this project design quality rests on two key variables.

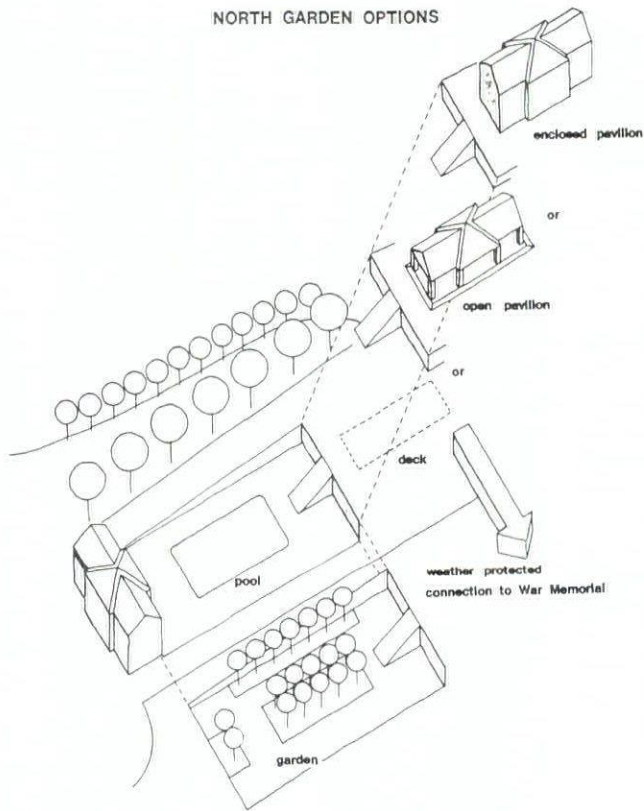
The first key variable was the relationship of the site to its context. Surrounding the 7.5 acre parcel were over twenty different buildings, land uses, and design features which had to be addressed visually. These included three major office buildings, the Milwaukee County War Memorial and Art Museum, two surface parking lots, three major roads, the City's urban park, the Lincoln Memorial Bridge, the land whose future use had not yet been determined. Given our profession's current concern with contextualism, this was not an easy chore.

The second design variable was creating an appropriate civic image for the terrace, particularly for the structures on top. Given public opinion, it was unlikely that any buildings higher than two or three stories would be considered acceptable. Yet, small buildings could not easily create a grand public image—especially surrounded by monumental office buildings and other civic structures. The proposed solution was a series of pavilions designed in a manner similar to many of the classical park structures in Milwaukee as well as other parks across the country. Examples from Olmsted and other designers were used to show how small pavilions, if properly located and designed, could create a graceful, strong civic image.

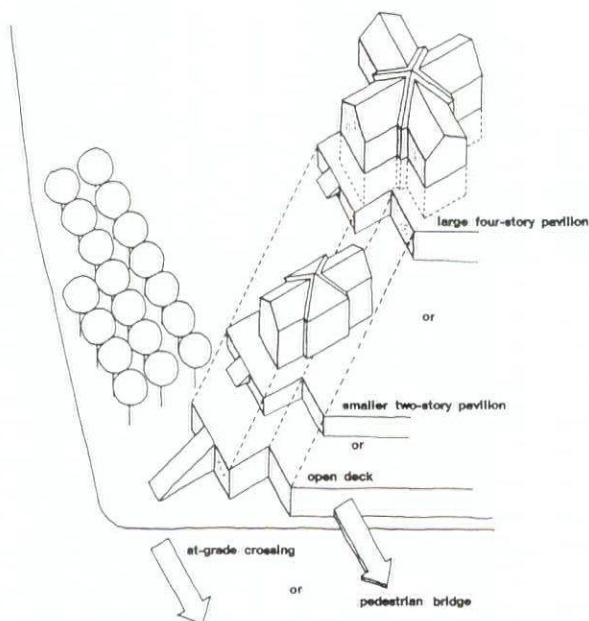
Site Plan and Design Concept

The result of the substantial analysis noted previously was the development of a general, straightforward site plan with locations for "anchor" pavilions at the north and south ends of the site, twin pavilions framing the spatial axis of Wisconsin Avenue and the view of the lakefront, and a courtyard on the west side which would serve as a public ending of the rectangular grid system.

NORTH GARDEN OPTIONS



SOUTH GARDEN OPTIONS

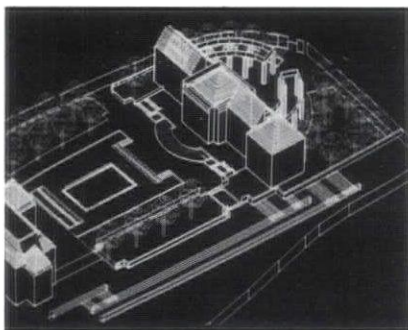


At one extreme the two pavilions can be eliminated, leaving only two smaller towers marking the tops of the circulation cores and service structures for the below-grade parking. At an intermediate level of development the pavilions can be built for a combined total of 14,000 square feet. At the other end of the continuum the pavilions can be enlarged and connected along the upper parking level to reach a combined total of 30,000 square feet.

This area contains no pavilions. It is the largest open space with a superior view of the lake and the area to the southeast. It is designed for both casual strolling as well as small outdoor performances and perhaps pushcart vendors. The design can accommodate a pedestrian bridge across Harbor Drive to the City's urban park either at the south end (as shown in the photographs) or at the north end near the promontory.

This area encompasses the major vehicular entrance to the downtown from both the south and the shoreline. The south pavilion is a landmark for this key turning point. The future use of land south and southeast of this area is uncertain. Consequently the tower and garden are intended as strong, but relatively neutral design features that can fit with a variety of different options in the immediate context.

The south pavilion is the only facility which can have indoor facilities at the shoreline level. This is especially critical if Michigan Street—the only arterial to actually reach the shoreline—is to be enlivened with pedestrian activity. As with the other pavilions, the south garden structure can be designed in different sizes and with varying amounts of interior space to accommodate different activities and facilities programs.



The pavilion adjoining the courtyard has the potential to be the largest structure with up to 40,000 square feet. On the other hand it can be entirely replaced by extending the open-air colonnade which extends around three sides of the court (as shown in the accompanying photographs).

The centerpiece of the courtyard is an ice skating rink or reflecting pool. Surrounded by trees and with ample opportunity for sitting, walking, skating and viewing, this area is intended for more intense year-round activity.

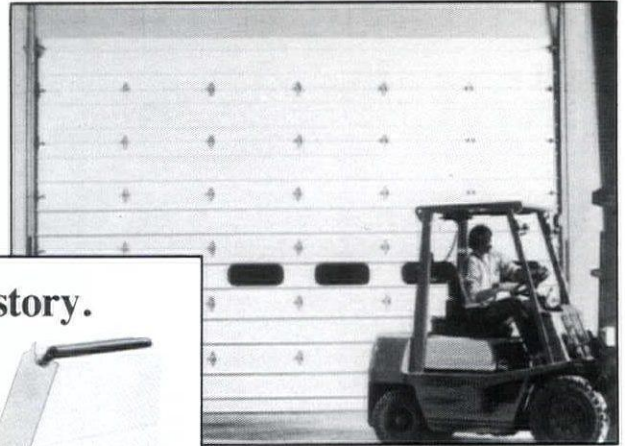
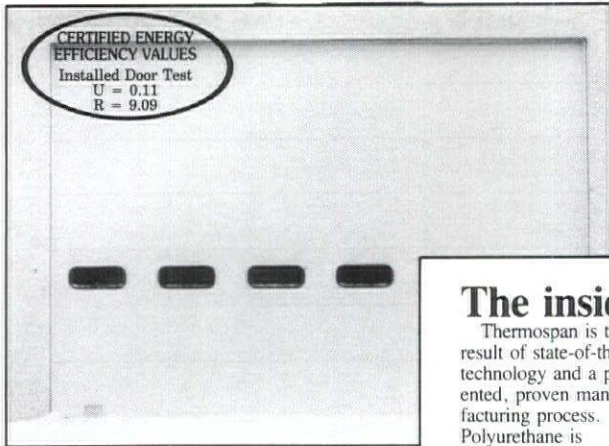
Just west of the courtyard is privately owned land which could, in the future, be developed with the new buildings. If this happens, then the courtyard—with or without a pavilion—could serve as a grand forecourt to a new structure.

There is also the potential for linking any courtyard pavilions and the below-grade parking to a new structure on the west which, in turn, could be linked to the skywalk system. While this option is a long term possibility, the image of a year-round, weather-protected connection from east of the Milwaukee River all the way to a view of Lake Michigan is most appealing.

Milwaukee has begun to recognize that its place in the world market can be more clearly established if its community assets are more plainly visible. The neglected nature of this small portion of the juncture between Milwaukee's downtown and Lake Michigan would change dramatically with the implementation of the lake terrace concept.

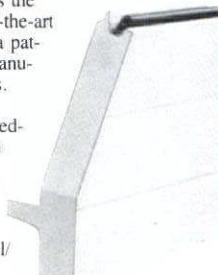
Progress during the last decade has been slow and often controversial. Local government and civic leaders are now trying to resolve all the specific details needed to push this project forward. The School of Architecture and Urban Planning has been pleased to offer its assistance as part of UWM's urban mission to Milwaukee and Wisconsin. The lake terrace has the potential to be an important civic keystone uniting Wisconsin's most dramatic natural amenity—Lake Michigan—with its most densely populated area—downtown Milwaukee.

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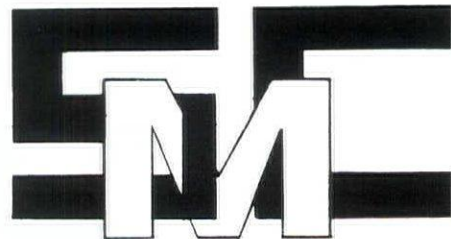
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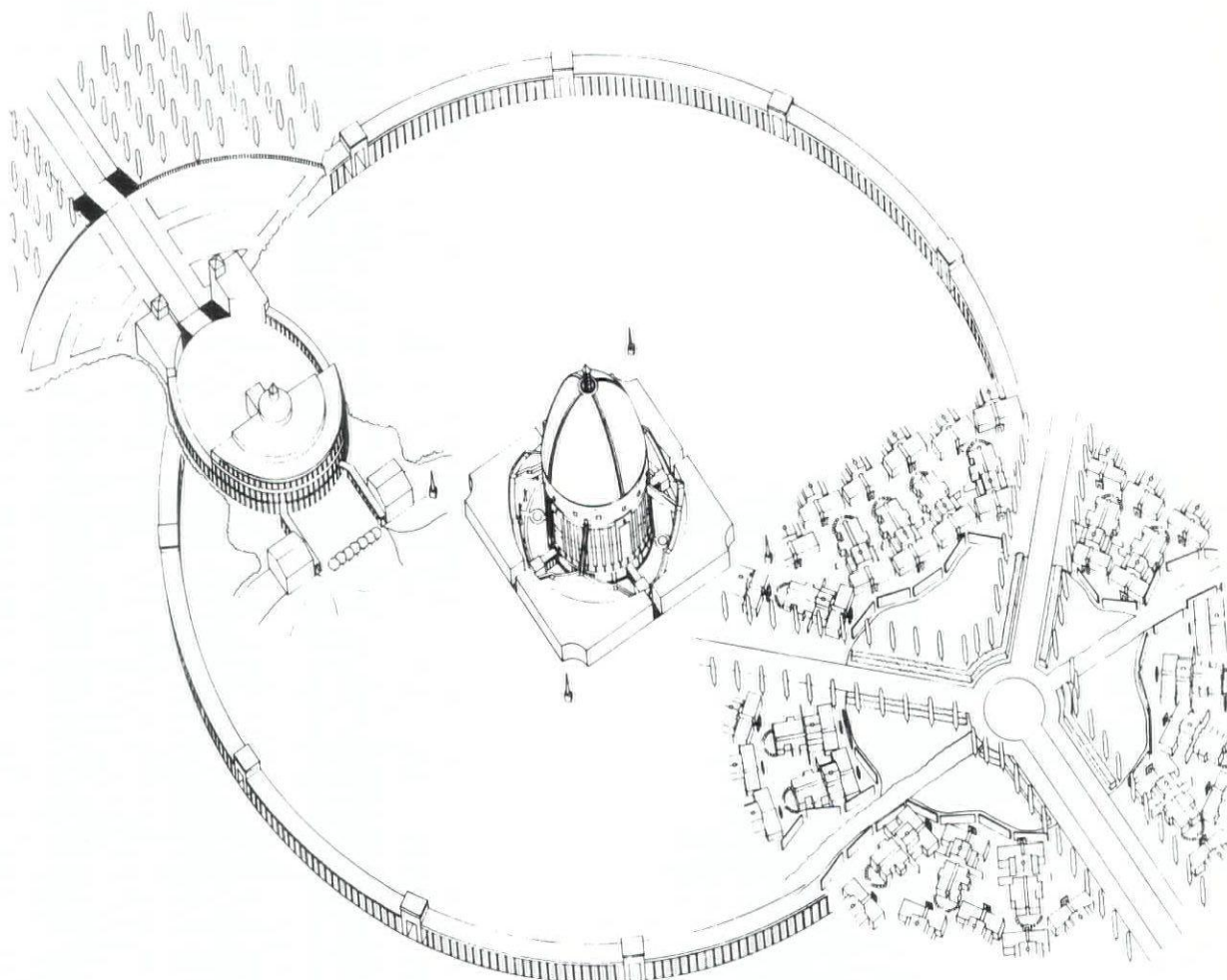
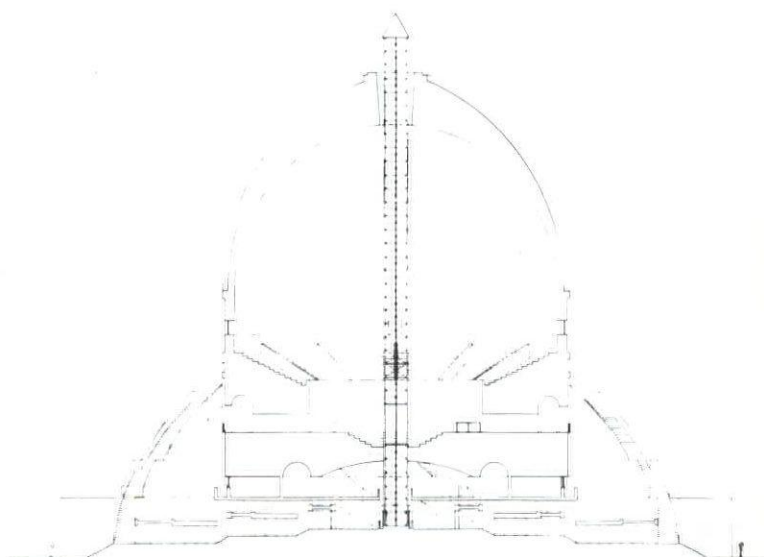
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Figure 1
Axonometric of the components of the city

Figure 2.
Detail Section of Major Building



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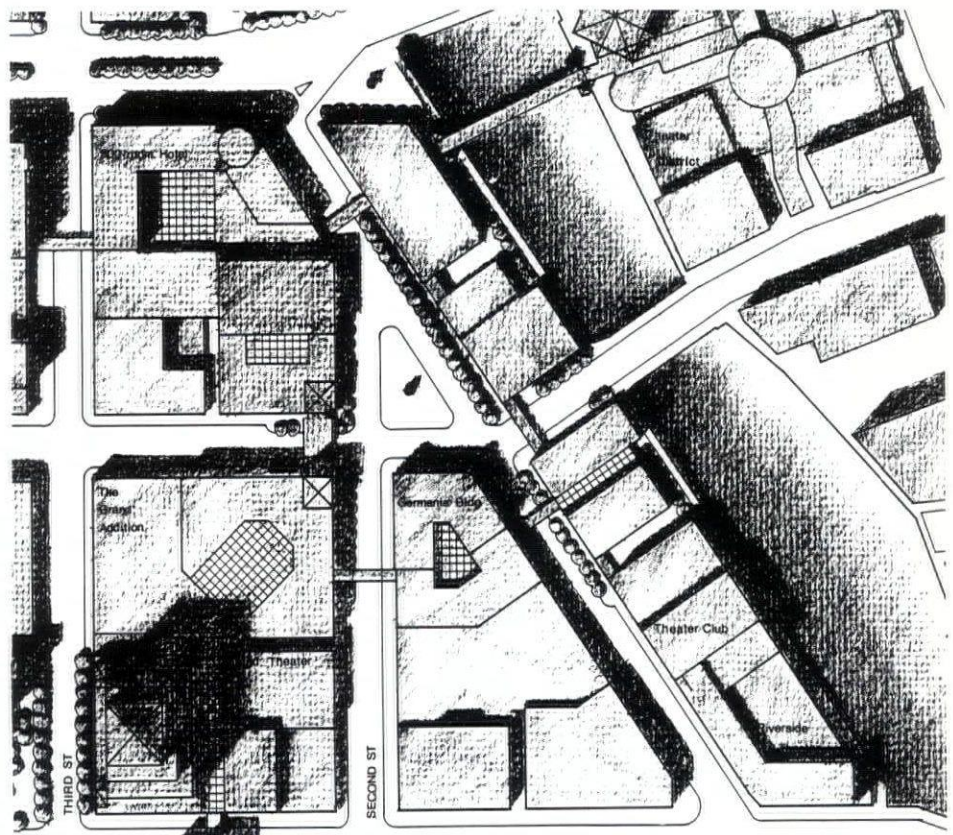
Oak-1515-B



Project
Student
Location

**Urban Design for Downtown
Timothy Gawronski
Milwaukee: Brummer Square**

A thesis proposal for comprehensive urban design plan centered on the square formed at the intersection of 3rd Street, Wells Street, and Plankinton Avenue.



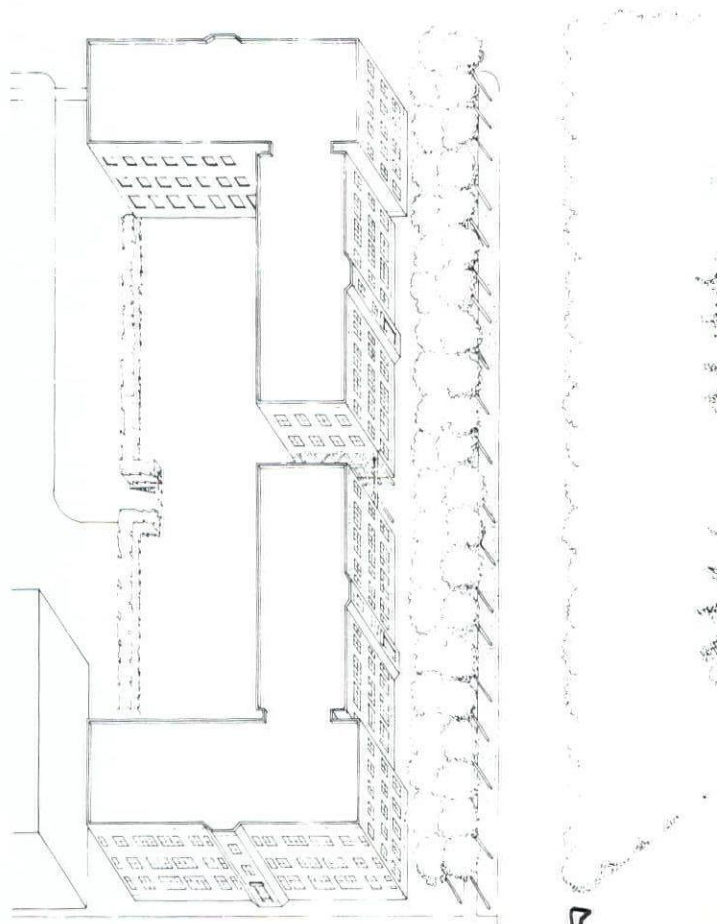
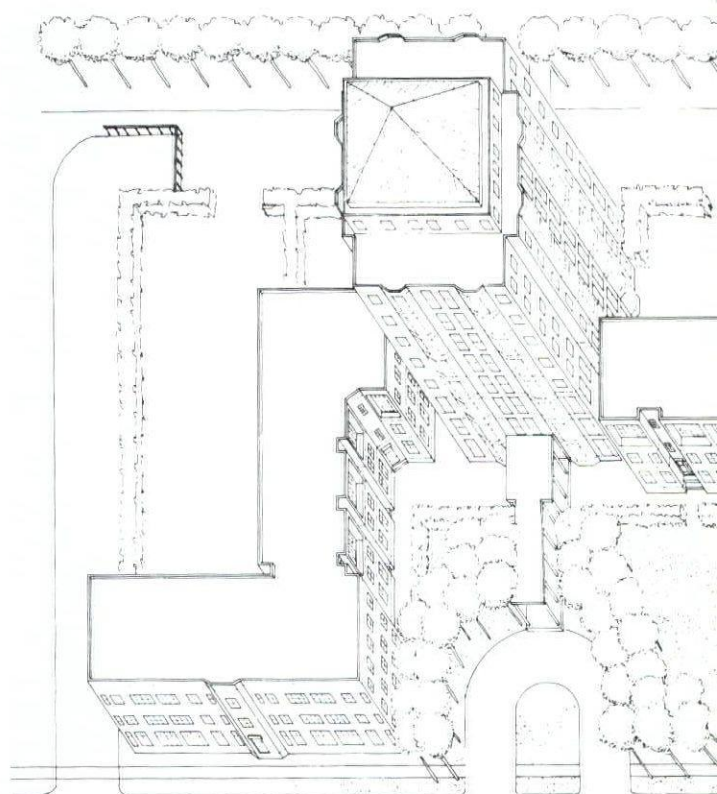
Project
Student
Location

Design for High Density Housing
Letta Ntsatsi
Prospect Avenue, Milwaukee

The undergraduate urban scale studio investigated options for the redevelopment of the Park Center in Milwaukee.

The project concluded with detail design for critical components of the plan.

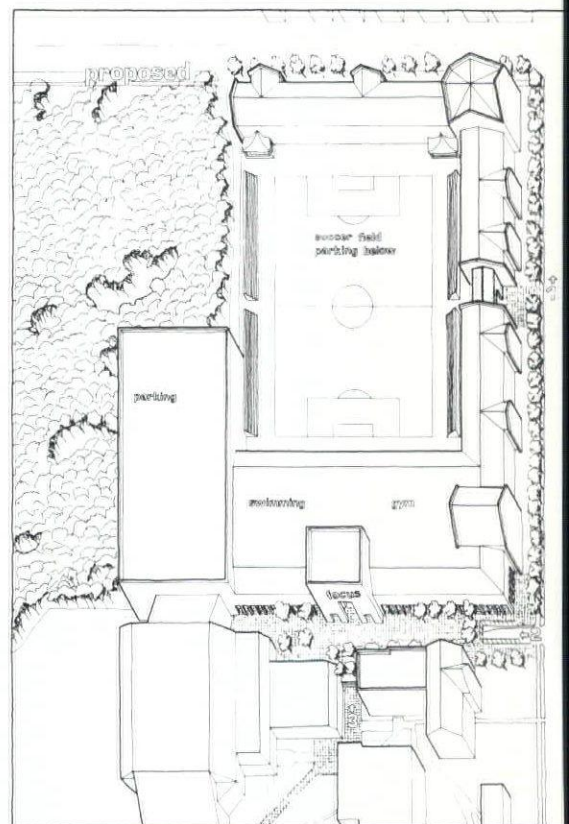
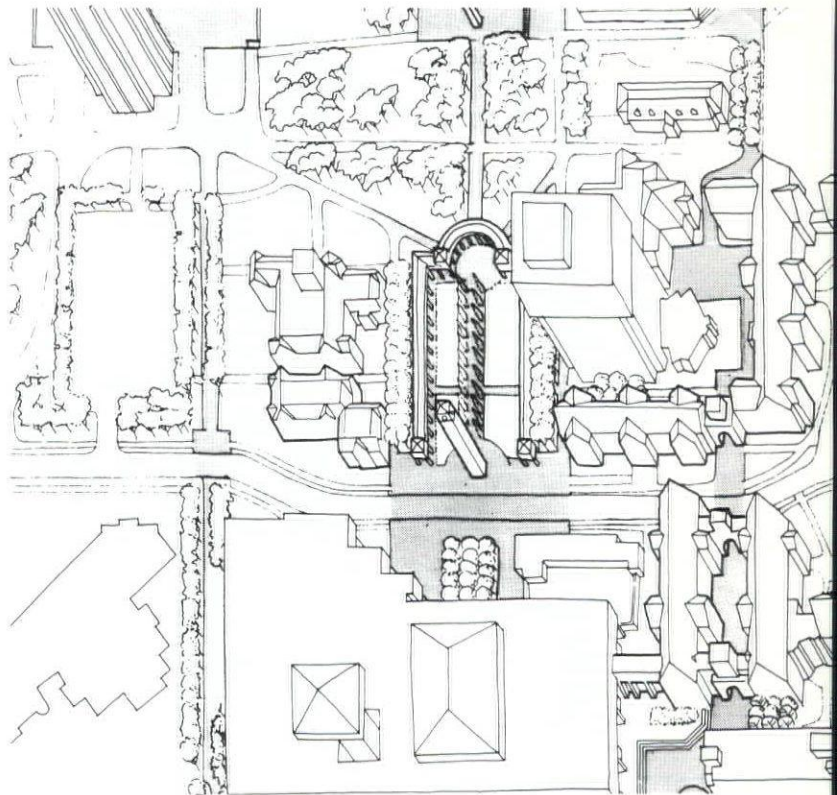
This project looks at an urban space located along Prospect Avenue and with high density housing on the Lake Michigan Bluff.



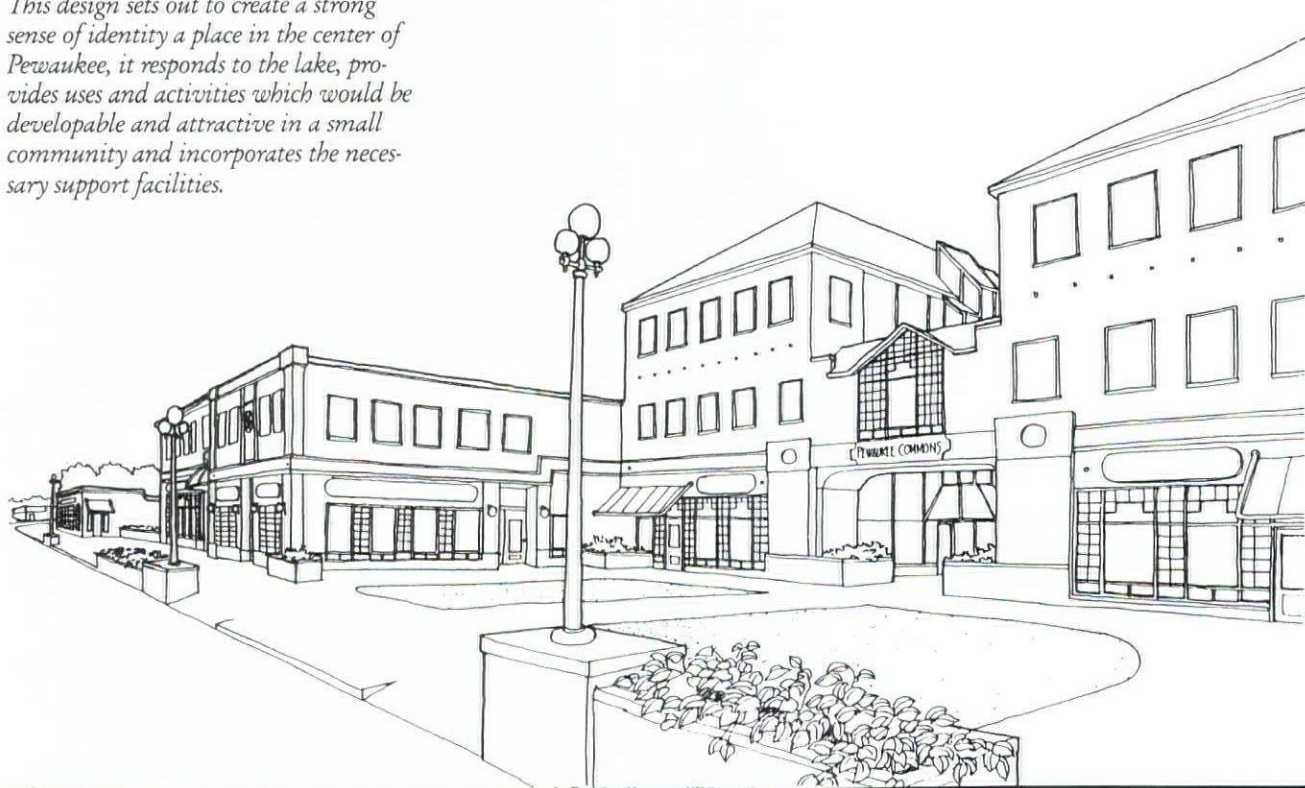
Looking at ways to manage the existing environment and to bring about successive improvements the topics Studio was charged with the goal of priority further discussion of the building program at UWM, opening up current thinking and suggesting new directions for development.

Figure 1.
Proposals for the realignment of Hartford Avenue and the creation of new building sites at the old right-of-way to create a formal cart, and at the heart of the campus.

Figure 2.
Proposals for development of the north-east corner of the campus as an extension of the Kloche Centre.



This design sets out to create a strong sense of identity a place in the center of Pewaukee, it responds to the lake, provides uses and activities which would be developable and attractive in a small community and incorporates the necessary support facilities.



Shoot Yourself In The Foot

The Wisconsin architectural community has taken a very high profile in promoting the selection of architects by public owners on the basis of qualification. This qualification based selection (QBS) is being actively promoted to a wide variety of public owners (schools, counties, cities, towns). Many of them are calling the WSA office and involving the WSA in establishing a QBS system. While the WSA has not promoted QBS to the private sector, more and more private sector owners are calling the WSA seeking this assistance. And the Wisconsin architectural community... how are they responding? Those who have pursued jobs in which a QBS system was set in place through the efforts of the WSA have been complimentary of the process. Not just the winners... but those who pursued the commission and lost. All seem to recognize that QBS is a system that serves both the owner and the profession well.

But QBS does not prevail on every occasion. A recent letter to the WSA office included the following:

"QBS is not dead but it's going fast! Enclosed is a 'Request For Proposal' from the Village of XYZ (the name has been changed to protect the innocent) looking for an architect to do a very complicated remodeling of an old 1915 hospital. As you will note, the RFP utilizes fee as 25% of the selection criteria. Based upon this selection criteria three firms have been shortlisted for interviews. Our firm quoted a ballpark fee of around 8-9% for this most sophisticated and demanding project. The three low bidders who were shortlisted quoted fees in the range of 3-4%. It's bad enough that they're going in at what amounts to donated services but it also makes us look like we're trying to rob the Village. Do you have an appropriate response to make the clients who are insisting on pursuing the bid concept? If we put in a proposal like we did on this one, it looks ridiculous. If we refuse to put one in, I don't see how that's ever going to reverse

the trend. And if it gets to where I've got to go in at the kind of price that the three low bidders submitted, it's time to get in a different line of work. The QBS concept is only going to work if everybody supports it. But with the kind of support shown above, I think we're all going to lose."

In response to this letter the WSA office contacted the Village Clerk in an attempt to ascertain how the Village had derived its scoring process for selecting firms for interview. As indicated in the letter quoted from above, that scoring process asked all firms to submit background information to be considered for selection, including the "reasonable price of services." According to the scoring sheet developed by the owner, the prices submitted by the firms were given a 25% weight in the selection process.

Are You Ready For This? The scoring procedure had been developed by the owner *in consultation with an A-E firm*. The A-E firm had recommended that fees be quoted and scored as a condition to making it to the shortlist. *Go ahead... shoot yourself in the foot.*

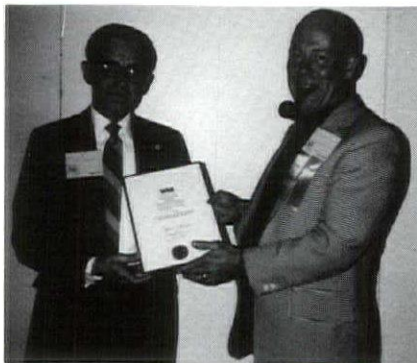
The WSA office is currently working with over 90 public owners in Wisconsin implementing a QBS system. QBS selects on the basis of ability, not who can do it the cheapest. QBS information generated by the WSA office is available to anyone who calls. No... we won't give you any leads. We will give you information we have developed which assists owners in implementing QBS. Read it. Use it. Critique it.

If you don't promote QBS, no one will.

Tinglum Retires

Jahn H. Tinglum, School Administrative Consultant with the State of Wisconsin Department of Public Instruction has retired effective August 1, 1986. Jahn has long been recognized throughout Wisconsin for his expertise in working with School Districts in the analysis of their facilities needs and their evolution of a sane, logical, and defensible design and construction process. School Superintendents, school board members, architects, engineers, and contractors have all come to respect Jahn for his competence and will sorely miss his even handed and competent approach to the design and construction process.

The membership of the Wisconsin Society of Architects wishes Jahn well in his retirement. What will he be doing? Some travel, continued restoration of an antique motorbike, and (hopefully) consulting for public and private owners seeking to define their building needs and evolve an objective, sane, and defensible process towards the implementation of the fulfillment of those needs.



Jahn Tinglum (left) receives WSA citation for Distinguished Service.

WAF Scholarships Awarded

Continuing its 31-year tradition of contributing to the educational development of architecture in Wisconsin, the Wisconsin Architects Foundation (WAF) has provided \$4,000 in scholarship funding to UWM School of Architecture and Urban Planning in 1986.

Appearing at the annual banquet of the School of Architecture and Urban Planning was WAF President Tom Nisbet, AIA. Award recipients pictured with Nisbet are Tad Gloeckler (left) and Jeff Bringenberg (right). In case you don't know, Nisbet is the smiling fellow in the center of the photograph.



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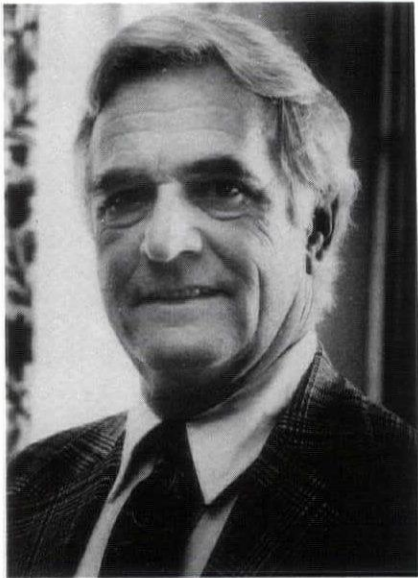
WAF Reaches \$100,000

It happened. After 32 years of contributing to the educational development of architecture in Wisconsin, the Wisconsin Architects Foundation (WAF) reached a new goal. As of 6/30/86, the WAF increased its endowment to a little over \$100,000.00. Income generated from interest on this endowment enhanced by annual donations by architects and others committed to architectural awareness and education are used annually to provide scholarship funding to students pursuing architectural education. The WAF also is a sponsor, in partnership with the Wisconsin Society of Architects, of the Wisconsin Public Radio Network.

The WAF thanks the hundreds of people who have made contributions over these many years and looks forward to many future years of providing scholarship assistance and architectural awareness in Wisconsin.

People and Places

The firm of Mark A. Pfaller, FAIA, Architects, Inc., has relocated to 15255 Watertown Plank Road, Elm Grove, Wisconsin 53122. The firm's phone number is (414) 784-5150. Mark A. Pfaller reports that current clients include The Milwaukee Journal Company and the Cedarburg School District.



Mark A. Pfaller, FAIA

Beckley Myers Architects has joined the Flad group of companies in Milwaukee creating Beckley/Myers/Flad. Both firms are currently working with the Carley Management Company and the Ogden Company preparing designs for the Park East freeway property slated for development by the Milwaukee Redevelopment Corporation. They will be seeking additional opportunities in the private and public sectors, as well as joint public-private projects.

Congratulations to L.J. Selzer. The American Institute of Architects has accepted Mr. Selzer as an Emeritus Member.

Membership Action

Bichler, Lynn, was approved for Associate Membership in the Southeast Wisconsin Chapter.

Kanoan, Ammar H., was approved for Associate Membership in the Southwest Wisconsin Chapter.

Pavlovic, Gordana, was approved for Associate Membership in the Southwest Wisconsin Chapter.

Thompson, Stephen G., was approved for AIA Membership in the Southeast Wisconsin Chapter.

Griffin, Anthony J., was approved for AIA Membership in the Southeast Wisconsin Chapter.

Dumas, Tyrone, was approved for Associate Membership in the Southeast Wisconsin Chapter.

Swift, J. Steven, was approved for Associate Membership in the Southwest Wisconsin Chapter.

Jenk, Christine, was approved for AIA Membership in the Southeast Wisconsin Chapter.

Schultz, Robert, was approved for AIA Membership in the Southeast Wisconsin Chapter.

Becker, Allan, was approved for AIA Membership in the Southeast Wisconsin Chapter.

Sathoff, Karen, was approved for Associate Membership in the Northeast Wisconsin Chapter.

Larue, Pamela, was approved for Associate Membership in the Southwest Wisconsin Chapter.

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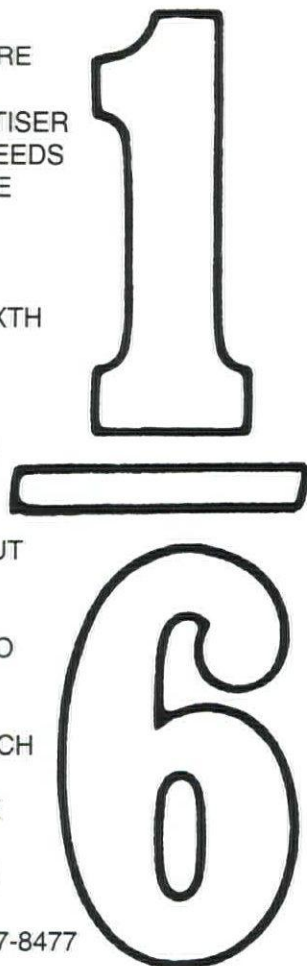


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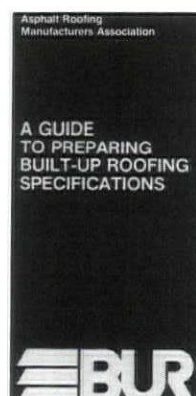
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Demand for information on built-up roofing confirms the continued popularity of the systems. The Asphalt Roofing Manufacturers Association helps meet this demand through its popular booklet "A Guide to Preparing Built-up Roofing Specifications."

First released in June 1983, the booklet contains information on all ARMA members' BUR products as well as material on the basics of built-up roofing systems and their components. A glossary of terms rounds out the information the booklet provides.

For information on obtaining copies of "A Guide to Preparing Built-Up Roofing Specifications" write to ARMA Literature, Sumner Rider & Associates, 355 Lexington Ave., New York, NY 10017.

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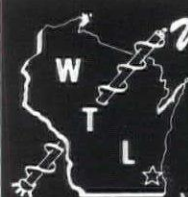
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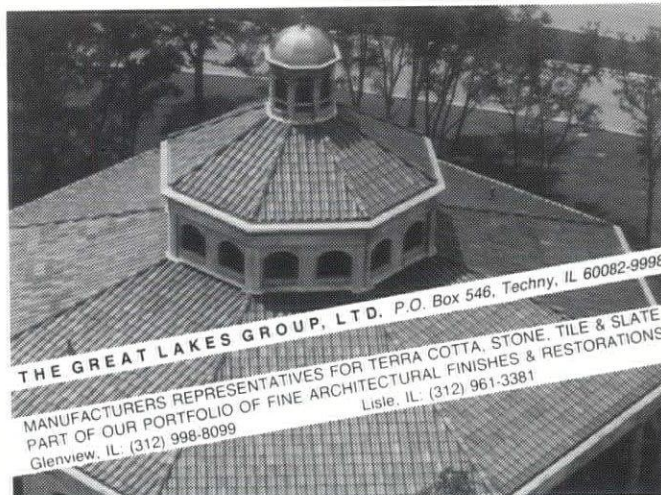
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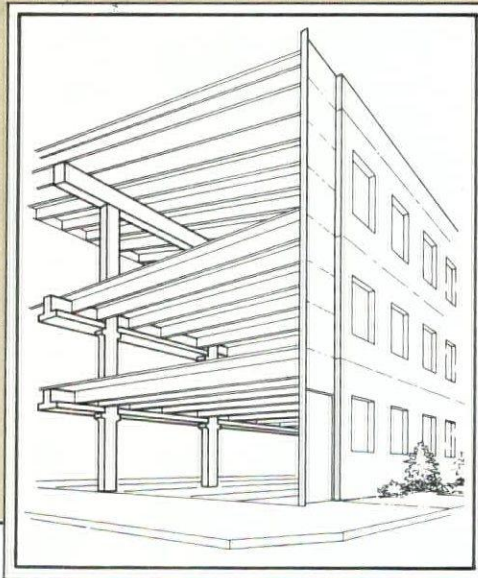
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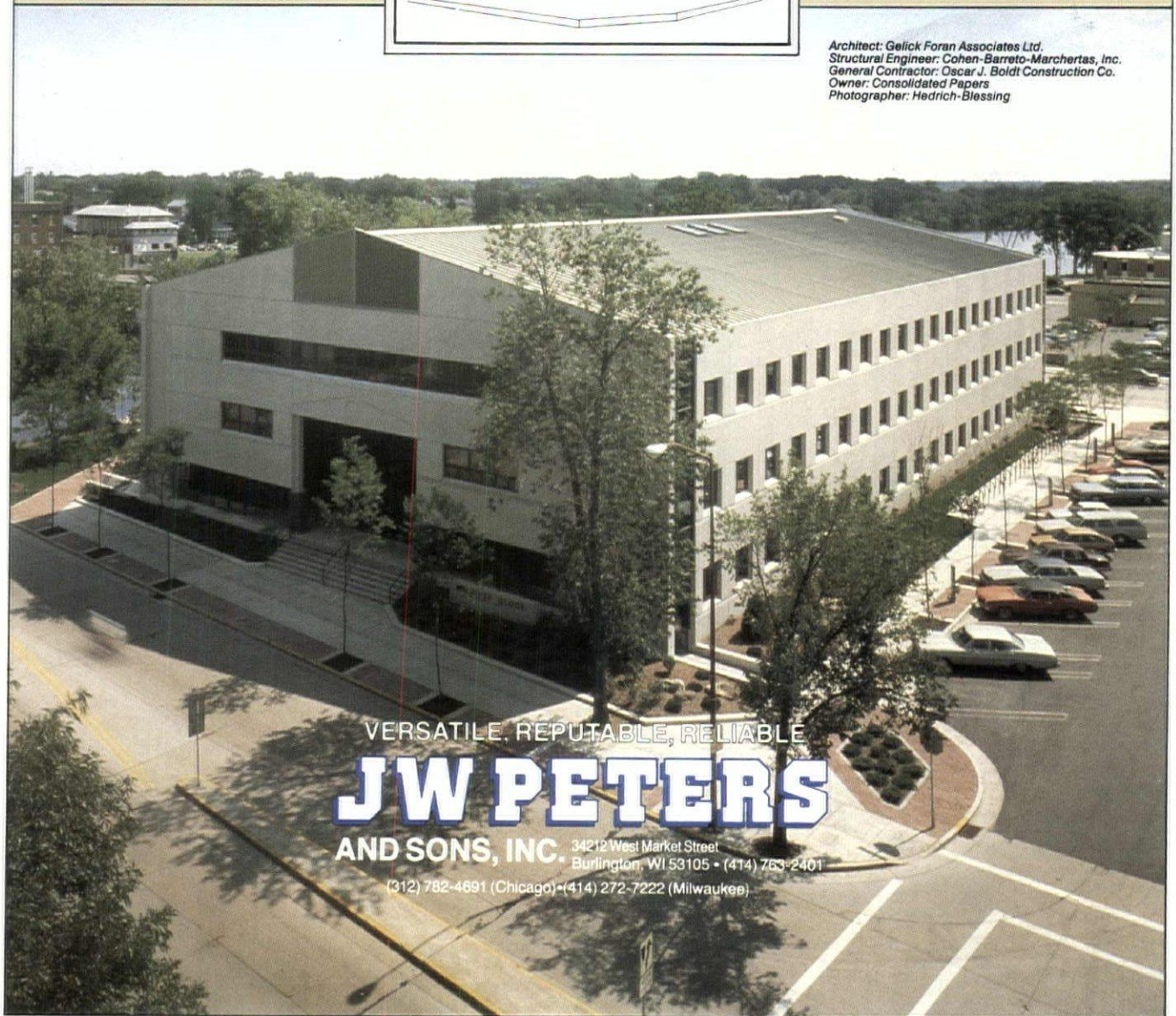
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